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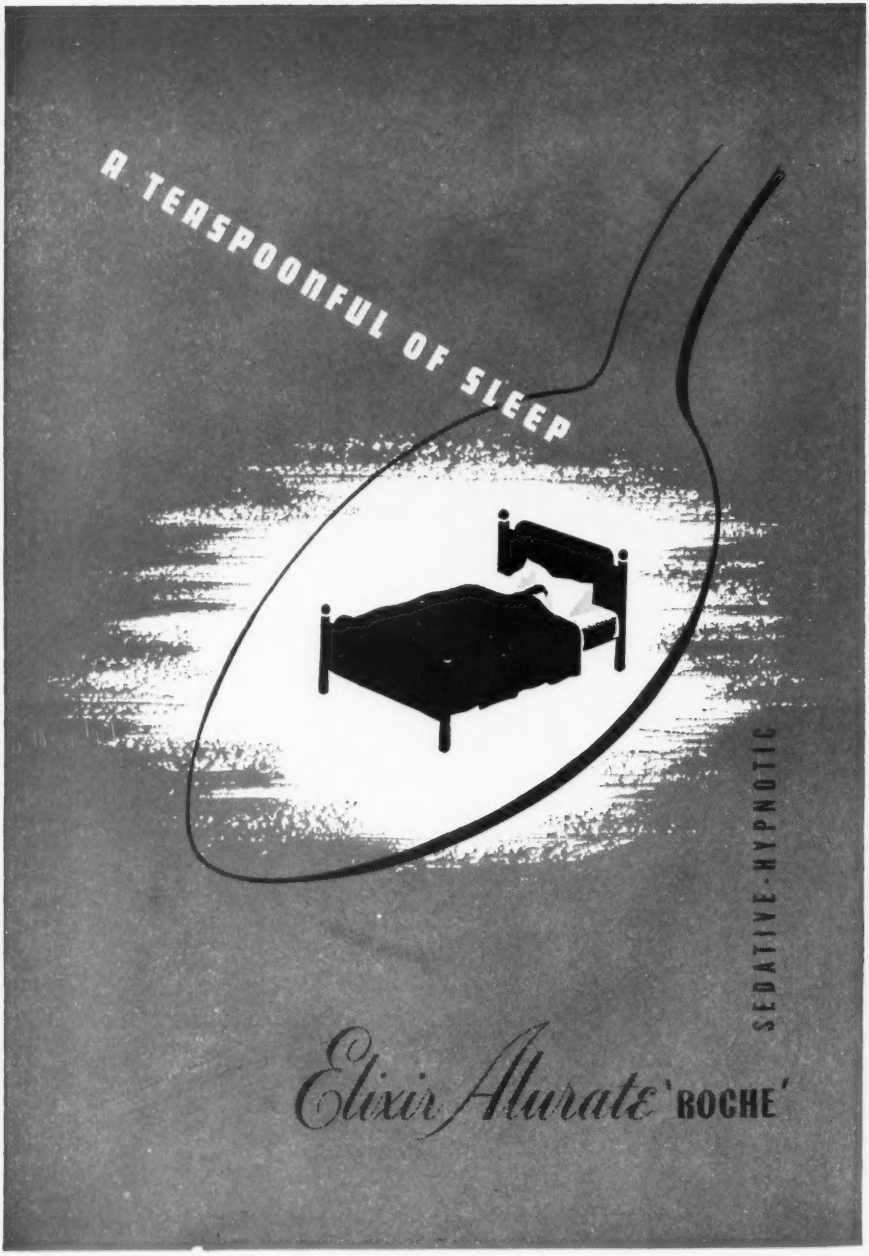

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EDITORIALS

Accomplishments of Wartime Research

ACCORDING to Dr. Alfred Newton Richards, chairman of the Committee on Medical Research of the Office of Scientific Research and Development, among definite accomplishments of wartime medical research are vaccines for lessening the incidence of the two recognizable forms of influenza; a complete protective against lobar pneumonia; atabrine discipline against malaria and the determination of a suppressive of that disease; concentration of pure serum albumin; the use of DDT against typhus; and penicillin.

The reader can expand this list to suit himself. He will hardly question any item on the list as far as it goes.

Feast or Famine

SPEAKING on January 16, 1946, before the Citizens' Planning Committee of the National Health Council, Dr. Louis I. Dublin very candidly discussed the "amazing situation" of a few giant and well-supported organizations, such as the American Red Cross, the National Foundation for Infantile Paralysis, and the National Tuberculosis Association, collecting stupendous sums, with, naturally, a vast accumulation of reserves, while most other equally deserving health agencies are famished for funds. This is a very unhealthy state of affairs. One perforce thinks of the killing competition of certain commercial organizations, yet certainly cutthroat ruthlessness is not in the minds of anyone working in this beneficent sphere.

A revision of the chaotic methods of financing all of these organizations is called for—a pooling of funds and rational distribution is in order. In the meantime there is "almost complete neglect of the campaign against heart disease, America's number one health problem." Infantile paralysis "literally runs away with the money." Yet when "compared to such conditions as heart disease and the other vascular diseases, infantile paralysis is a minor problem. Yet the Foundation is able to raise as much money each year as all other national societies combined, with the exception of the American Red Cross and the National Tuberculosis Association."

The greater the need the less the voluntary support. Infantile paralysis raises $94 per case; tuberculosis $22 per case; cancer $8 per case; diabetes $.05 per case; heart disease $.03 per case.

Competing Pioneers

SAMUEL GUTHRIE, the American, antedated Liebig and Soubeiran in the discovery of chloroform.

In our February issue we showed that Henry F. Harris of Philadelphia and Atlanta was bombarding cancer with ionized uranium in 1925. The history of uranium in medicine, no matter how used, will have to cite Harris. Yet we should not be surprised if it be found that Harris had a forerunner.

Now it has been shown that John Tyndall, in 1875, demonstrated the bacteria-inhibiting property of the mold *Penicillium glaucum*, our attention having been called to this fact by Russell F. Maddren in the *Journal of the American Medical Association* of January 19, 1946. Tyndall's article on the subject appeared in the *Philosophical Transactions* of the Royal Society for 1876.

One must be sure that one has the right pioneer before closing the lists.

Political Teratology

A NATIONAL system, whereby voluntary insurance agencies now taking care of solvent clients would also use tax-

derived public money to administer more or less compulsory medical care of the indigent and near-indigent, would be a dangerous one, since in the end government would obviously take over all, just as Lloyd George absorbed all private agencies to start Britain's compulsory sickness insurance.

If government (the wolf) is cunning, it will offer this bait (to Little Red Riding Hood).

Such a step has been proposed in various quarters. Perhaps this two-headed monster will yet appear in a curtain-raiser preparatory to the real show: "Institutional Arthritis, or Bureaucratic Control," with a cast consisting of all the principals whom we have learned to associate with the socialized medicine putsch.

The Tireless Browns and Smiths of Today

OUR national history has been notably influenced quite often by paranoid and schizoid personalities, and now and then by outright paranoiacs. Two examples of the latter who at once come to mind are John Brown, militant American abolitionist, and Joseph Smith, founder and first prophet of the Mormon Church. We do not reckon with paranoia reformatoria as often as we should. In these parlous days, with striking examples here and there, we should be more alert, for the citadel of medicine itself is now threatened. We talk jestingly about crackpots while Rome burns. Chiefly to be reproached, it seems to us, are the psychiatrists, who seem socially ineffectual in this particular field. We say "chiefly," for if they are not our most responsible and courageous guardians against such menaces, who else can be? To liquidate highbrow cranks only after overt acts is not enough; psychiatric Klieg lights should be turned upon the whole range of their baleful activities.

✚

Red Cross Names Health Services Advisory Board

APPOINTMENT of an Advisory Board on Health Services to coordinate activities of the American Red Cross in the health field has been announced. The board chairman is Lewis H. Weed, M.D., of Baltimore. Dr. Weed also is chairman of the medical sciences division of the National Research Council; and director, School of Medicine, Johns Hopkins University.

The committee consists of 109 men and women from 25 states and the District of Columbia, representing every specialty in the field of health. Not only physicians were appointed, but also nurses, dentists, health educators, medical and psychiatric social workers, hospital administrators, medical publicists, nutritionists, pediatricians, public health administrators, and sanitary engineers.

Three members of the advisory board will serve as general vice chairmen. They are: Roger I. Lee, M.D., Boston, Mass., John D. Lyttle, M.D., Los Angeles, Calif., and John Romano, M.D., Cincinnati, Ohio.

The first meeting of the Board's executive committee was held in Washington, December 15. The entire board will meet at least once a year.

Three ex-officio members of the general board are: the surgeon general of the Army, Major General Norman T. Kirk; surgeon general of the Navy, Vice Admiral Ross T. McIntire; and the surgeon general, Public Health Service, Dr. Thomas Parran.

National Social Hygiene Day

THROUGHOUT the country, national, state and local civic, health and welfare groups participated in this recent event by holding conferences, meetings and discussions on the prevention of venereal diseases, promiscuity and prostitution during the months and years ahead.

Experience following the last war leads to the fear that there may be a great increase in the prevalence of the venereal diseases during the post-war years. The growth of public apathy to this problem can only be offset by information, education and publicity.

URGENT MAXILLOFACIAL SURGERY

Louis W. Schultz, M.D.

Attending Oral Surgeon to the Illinois Research and Educational Hospital, the Presbyterian Hospital, Children's Memorial Hospital and West Suburban Hospital

II

NOT being satisfied with the results obtained in most bilateral cleft lip operations performed by various operators, the author searched diligently for a method which would produce a more nearly perfect effect. Having tried many of the methods described in the literature and obtained mostly poor results, he finally devised the technic by which he can produce a much better lip in 98 per cent of these cases.

The first prerequisite to success is a large number of cases. The second is best expressed by the phrase: All the normal parts are there, all one has to do is unite them.

The transitional stages from the classical bilateral cleft lip textbook technic to the method now developed are evidenced by the cases the author has operated on over a period of twenty years.

THE illustrations present the author's technic step by step. (Fig. 6-7)

The incisions are made so that all vermilion tissue is saved. The normal vertical lip length is that which closely approximates the length of the skin of the bud of lip tissue overlying the intermaxillary bone. This small portion of skin and muscles develops to double or even treble its original size, sometimes very shortly after it is placed in its normal position between the lateral segments; for then muscle tension exerts its influence on this highly important portion of lip. The lateral lip segments are prepared by starting an incision high in the lateral wall of the nose, and carrying it half way through the body of the lip to a predetermined point in the muco-cutaneous junction. From this point it is carried medially and at the same depth through the lip, which shows when the lip is at rest. The lingual portion of this flap and one similarly prepared on the opposite side are joined later to form the lingual surface of the upper lip.

In the preparation of the central bud, all vermilion tissue up to its attachment to the gum is conserved. The incision is started high in the medial aspect of the nose and carried down to a predetermined point in the mucocutaneous junction; then up through the mucous membrane, to its attachment to the maxilla and following its attachment to the maxilla to the median line. Then a similar incision is made on the opposite side of the intermaxillary bud to correspond with the one just made. Now the central flap is dissected from the bone and so prepared that it fills perfectly the missing parts: (a) skin, (b) muscle and (c) mucous membrane, to give proper contour, thickness, length and width, and is turned up out of the way. The lateral flaps containing the mucous membrane are turned lingually and united in the median line. The central flap is brought down and united with lateral flaps containing the skin—muscle to muscle, mucous membrane to mucous membrane and skin to skin. Interrupted chromic 000 catgut sutures are used for the muscles, and interrupted nylon 6-0 for the skin and mucous membrane. The nostrils should be closed with iodoform gauze impregnated with compound tincture of benzoin. The wound is to be kept clean and dry with saturated boric acid solution and cotton applicators when necessary. The Logan lip bow can be used to advantage to relieve tension on the suture lines.

The result is an abundance of mucous membrane to fill the central space formed by the dissection of the median flap from the bone. Thus, a perfect lip results, including the Cupid's bow.

BILATERAL cleft lip cases usually present with a broad nose. The absence

Department of Surgery, University of Illinois, College of Medicine. Part II, concluded from February, 1946 issue.

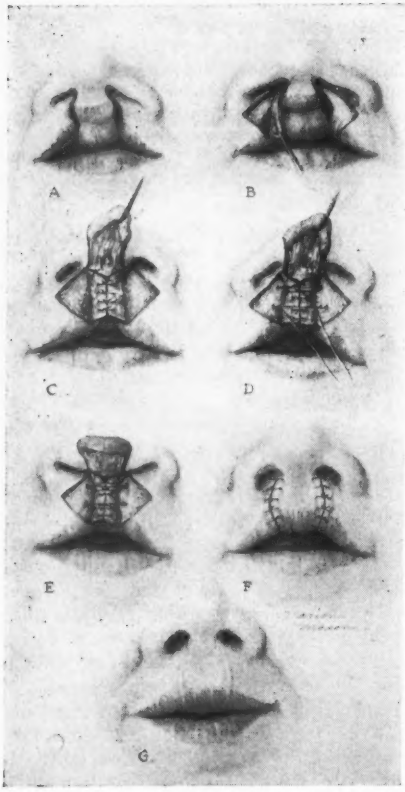


Fig. 6. Author's technic for bilateral cleft lip reconstruction.

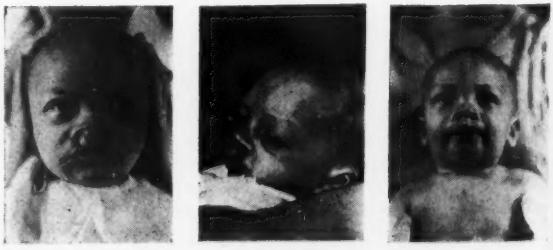
of the columella and the extreme width of the nasal tip are due to the lack of antagonistic forces during the developmental stages. Since this cleft occurs five or six weeks after conception and is not corrected until several months after birth, a great deformity usually results. Normally the intemaxillary bud or lip tissue is influenced by the action of all the muscles entering into the upper lip and the orbicularis oris is intact while in this condition. The segment contained in the bud is detached on both sides from the rest of this muscle which normally encircles both upper and lower lips. The development forces of the septum and dorsum of the nose are forward and the intermaxillary bud of lip tissue, if unattached laterally, is free to move forward with this tissue. The intermaxillary bud does not always develop to its normal size because the antagonistic forces could not act on this segment. This lip tissue very quickly develops when the normal muscle balance is established.

The correction of the lip may produce a very broad nasal tip and this should be corrected about one or two months later.

The anatomical deformity of the nose is due also to the wide separation of the alar cartilages, the fleshy portion of its tip lying between these cartilages, hence it should be elevated.

The author developed the following technic to overcome these deformities, calling it V-Y Columellar Rhinoplasty. A V-shaped incision is made into the columella, starting the lower portion of the V in the center of the columella where it joins the philtrum. The incision is carried upward and outward on each side on the lower edge of the alar cartilage. The soft tissues are dissected from the nasal spine out to the upper border of the lower alar cartilages. The portion lying between these cartilages and forming part of the tip of the nose is dissected from the cartilages and held up by a tenaculum. The walls of the columella are approximated. Be-

Fig. 7. Reconstruction of bilateral cleft lip by author's technic.



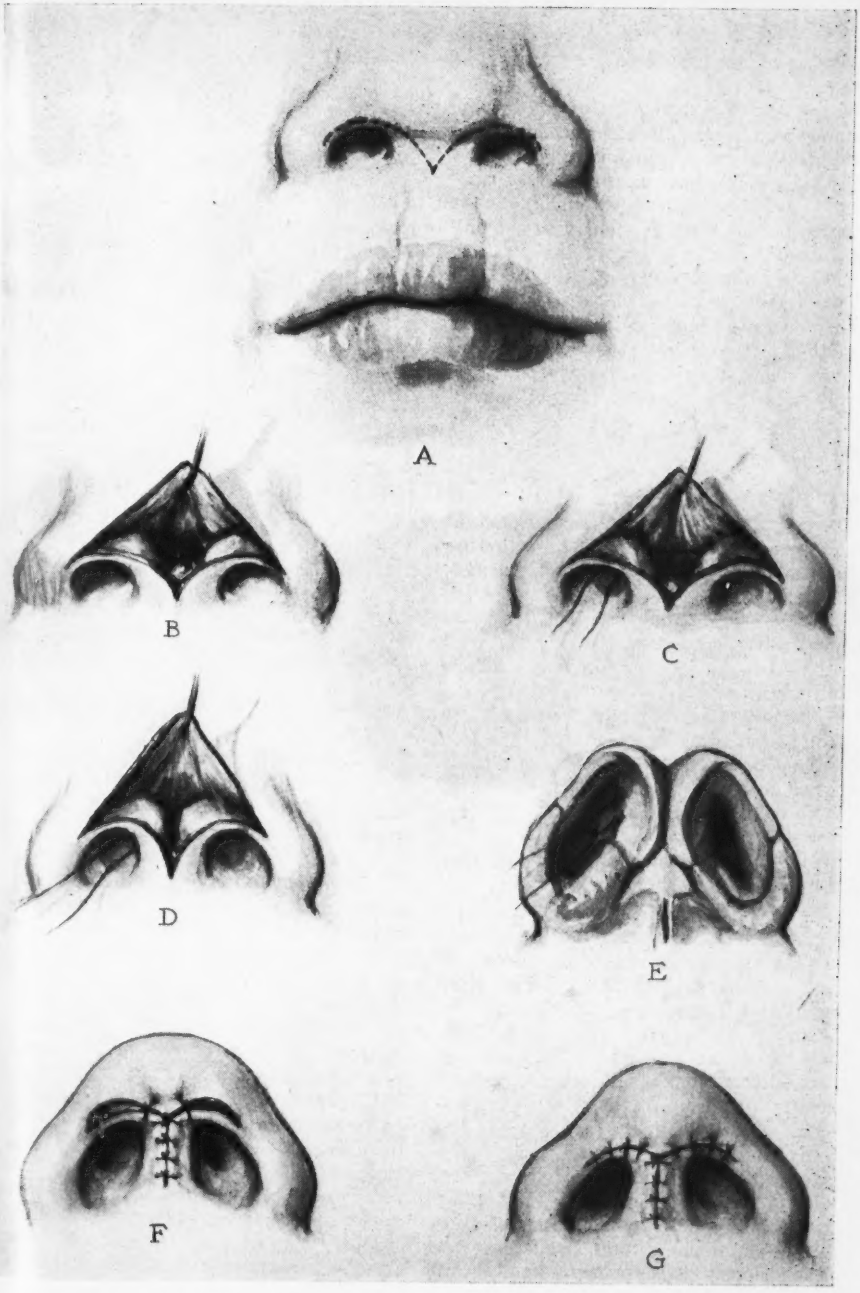


Fig. 8. V-Y rhinoplasty for flat nose and columellar development.

ginning at the nasal spine, a mattress suture is inserted extending through each nostril bringing the cartilages together at this point. The posterior portion of the columella is closed with interrupted nylon sutures. When near the tip, another mattress suture is placed through the anterior portion of the cartilages bringing these structures together in the midline. The remaining portion of soft tissue is now sutured in place, which gives a much sharper dorsum and tip to the nose. The vestibule of the nose now is long and narrow and both sides correspond. Development takes place and a well pointed nose results. The pictures will portray the steps described. (Fig. 8)

THE suture materials used in closing cleft lips and palate are adapted to the needs of the patients. The following sizes and kinds are used, preferably mounted on atraumatic needles:

Silkworm gut or No. 0 chromic to transfix bony fragments.

No. 4-0 chromic to approximate muscle and to close nasal surface of palate.

No. 6-0 and No. 8-0 nylon to close skin and mucous membrane of lip.

No. 6-0 to close palate (braided nylon is not used).

Varieties of Cleft Palates:

BROPHY,[4] a pioneer in this work, classified clefts occurring in the hard and soft palates. The plate shows his 15 varieties and pictures, all clefts in the midline. The photo and artist's drawing portray a right-sided cleft that came to the author for treatment several years ago. This is the only one he has ever seen. The child also had a macrostomia and other congenital defects in the oral cavity which were corrected at the same time. (Fig. 9-10-11-12)

As in other branches of surgery, different methods are employed by different operators. For instance, Dr. V. P. Blair[3] uses the Mirault operation for cleft lips, which, no doubt, brings the best results in his hands. However, he cautions against experimenting with various technics and advises that each operator find the method

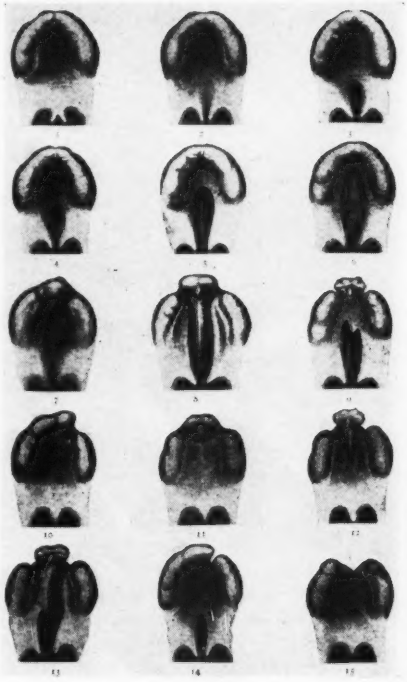


Fig. 9. Brophy's classification of forms of cleft palate.

which yields good results and use it.

Whether the Rose or Mirault technic is used, a modification of them, or the author's technic for bilateral cleft lip, does not matter, as long as the result is good.

Palates may be closed by the method of Ernest and Halle, Von Langenbeck, Dorrance,[11] Veau,[28] Wardhill,[29] Brown,[5-6] etc., but the technic suitable and successful for the case in hand should be chosen. Closing a palate in a number of stages should be avoided.

A number of individuals have had many operations for the closure of these clefts. Some have had as many as forty or forty-five operations and still there is no closure. These individuals naturally have a disturbed blood supply, and therefore, construction of such palates with pharyngeal tissue is better than the use of extra-oral tissue or an obturator.

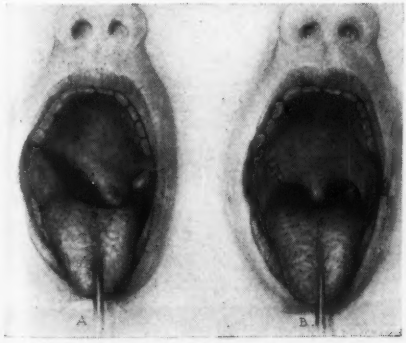
Wardhill's[29] reefing forward of the superior constrictor is successful in some cases.

Particular care must be exercised in lengthening palates not to risk perforations in the hard palate when setting back the flap. If this does occur, it is best to return the flap to its original bed and try again at a later date.

The denuded bone is covered with granulations in about two weeks, and in a month one can hardly tell that the tissue was lifted and replaced.

CLEFTS of the hard and soft palate should be closed in one stage if possible. To close the hard palate first and later as a second stage attempt to close the soft palate, necessitates a second anesthetic and produces an undue amount of scar tissue and shortening of the palate. The method the author uses in closing complete clefts of the hard and soft palate is one developed by taking the good points from all sources and adding some of his own. It is satisfactory in his hands because most of his palates close completely in one operation. When a failure does occur it is a small opening at the junction of the hard and soft palate where the cleft is widest, the blood supply poorest and the tissue thinnest. Openings in this locality usually close spontaneously within three or four months. The baby should have a rest period of that length of time

Fig. 10. Artist's sketch of right-sided cleft palate and macrostomia.



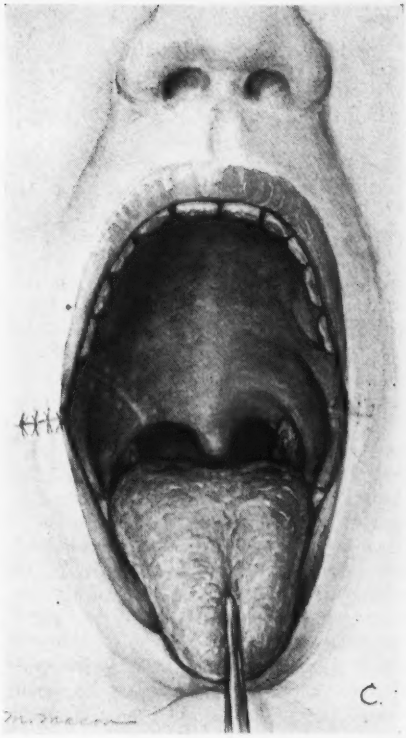


Fig. 11. Artist's sketch of closed right-sided cleft palate and macrostomia.

before being examined again to see if the opening has closed.

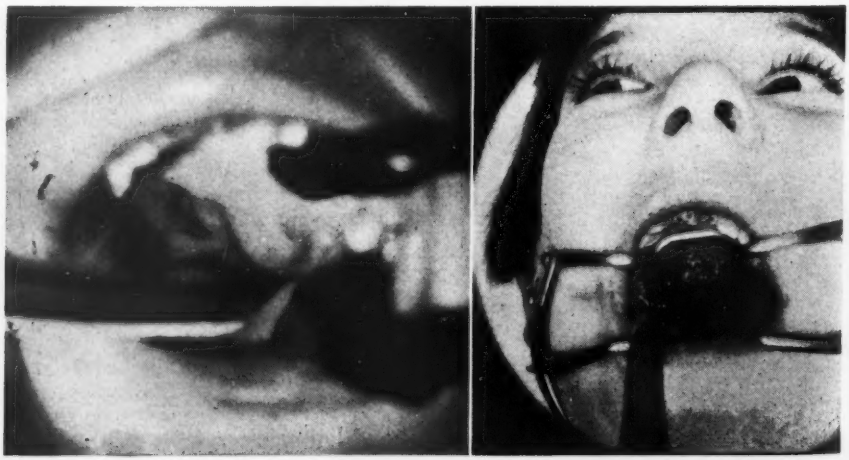
The technic used is simple. The baby is held on the table by means of a canvas strap about 4 inches wide, placed under the infant's neck and then brought over the shoulders and tied to the foot of the table. This permits use of the Trendelenburg position after anesthesia is induced. The head of the baby being low, and the feet high, blood and mucus accumulate in the nasopharynx and oropharynx, thus reducing the incidence of aspiration pneumonia.

The Lane mouth gag is used because there are no teeth present. A piece of suture material is passed deep through the body of the tongue to hold it forward

during the operation. (Many of these children are partially tongue-tied; if so, it should be corrected at this time and is easily done.)

The next step is to start a line of cleavage where the palatal tissue joins that of the nose and then raise the mucoperiosteal flaps from the hard palate with the subperiosteal elevators. When sufficient tissue has been relaxed the flaps are held up alternately on each side and, with a straight chisel, the mucous membrane reflected from the floor of the nose to the soft palate is severed by running the chisel along the edge of the palate bone or the distal end of the hard palate. A fine tenaculum is now used to hold the edge of the soft palate while it is split along the medial edge. The soft palatal tissue is not cut off and discarded to get a fresh surface for this wastes valuable tissue. Use a fine tenaculum to steady the tissues, instead of a tissue forceps; compressing the tissues with a forceps is not conducive to good healing. At this point determine whether it is necessary to relax the structures still further to get good approximation without tension. If more relaxation is needed, make the typical incisions at the heel of the upper jaw and with a chisel dissect and strip the tensor palati muscles off the hamular processes and pack the incisions with a piece of iodoform gauze impregnated with compound tincture of benzoin to release still more the tension on the suture line. If the flaps now approximate each other without a suture, one can be satisfied that the palate will heal by first intention. The three most important factors in all plastic surgery are: adequate blood supply, relaxation of tissues so there is no tension on suture line, andr prope coaptation of similar structures. The first part to be closed in the suturing of the palatal flaps is the nasal mucous membrane on the soft palate. This is approximated with number three-0 chromic gut suture mounted on a small curved needle. The needle is started in the nasal surface of the mucous membrane on one side and passed out midway through the muscle in the split edge of the soft palate. Just the reverse is done on the opposite side; into the muscle and out on the nasal mucous membrane and then tied with several knots. The ends are cut off short and, by means of these simple interrupted sutures, the entire nasal surface of the soft palate is closed. All the knots are on the nasal surface of this portion of the palate. The chromic gut sutures need not be removed. The number 6-0 nylon mounted on an atraumatic needle is now used

Fig. 12. Right-sided cleft palate.



to place mattress sutures throughout the length of the hard and soft palate, tying 5 or 6 knots in each suture and cutting the ends off at the knot. Then simple interrupted sutures are placed along the entire palatal surface, tight enough to permit no leak of air or fluid through the suture line. This gives a broad contact of raw tissue without tension. The solid shaft nylon of 6-0 caliber gives a cleaner surface to the palate than any other suture material used. Having tried horse hair, silk, dermal, dermic and others, none has the merits of nylon. With nylon suture material, all sutures put into the tissues must be removed. This is not true when using other suture materials. They cut out or fall out and gather food and other foreign material. Nylon remains clean, without irritation to tissues, and is strong and resilient.

This operation should be done when the baby is from three to six months old.

The babies are usually returned to bed with the suture in the tongue so that any obstruction can be readily cared for. It is removed as soon as full consciousness returns. The child can now be fed by any means except gavage or nipple, starting three hours after the operation. The Breck feeder, medicine dropper, medicine glass, teaspoon, etc., are all serviceable.

THE most important part of the postoperative treatment is proper and adequate sedation. This is occasionally interfered with when the baby develops an edema of the pharynx from the pharyngeal packs of iodoform gauze. These should remain in place for at least one week, and it may be necessary to place the baby in an oxygen tent to make respiration less labored; in extreme cases it may be necessary to remove one or even both packs before the week has elapsed. Occasionally allow the packs to remain 9 to 10 days before removal. Sedation is effected with elixir phenobarbital, one drachm p.r.n. to keep the baby groggy. Sometimes the child will refuse its food if the sedative is added to the milk and even when the elixir is given between meals. In such cases sedation is obtained by the use of nembutal suppositories, 1/4 gr. p.r.n. These suppositories are supplied containing 1/2-3/4 and one grain of the drug and must be broken and used accordingly. It is necessary to keep the baby from crying for at least one week, preferably two weeks. Usually the first week after the operation is the hardest; the child will be quiet the second week without sedation.

The loss of blood and other fluids, such as saliva, perspiration, urine and even mucus, etc., is an important problem requiring careful attention during the postoperative period. At the time of the operation instruct the intern or resident in the immediate postoperative course to restore the fluid balance. The infants can receive 20 cc. of whole blood, preferably from one of the parents, immediately postoperatively; if necessary, 100-150 cc. citrated blood intravenously may be given. If more fluids are desired 100-150 cc. of physiological salt solution is given subcutaneously in the thigh on each side but not under pressure. Physiological salt solution, in small quantities, can be given subcutaneously with a 20 cc. hypodermic syringe. All the 5 per cent glucose and 3 per cent sodium bicarbonate that the baby will take, is given per os between meals for the first 24 to 48 hours. The importance of fluid balance and restoration of chlorides should be remembered when the infant runs a temperature. Small quantities of fluids (2 or 3 drachms) can be started in some cases at 1/2 hour intervals as soon as the baby regains consciousness.

Arm cuffs are important to keep the baby from getting its hand to its mouth, sucking its fingers or placing foreign bodies in its mouth. A palate can be ruined in half a minute if an arm cuff comes off and the child gets its thumb in its mouth.

At times babies develop a nasal discharge. A few drops or a spray of a 5 per cent sodium sulfathiazole solution applied to the nares every three hours is very beneficial. Many preparations and immunizations have been used before the advent of the sulfonamide drugs, but the one mentioned above seems to be the best to date. Sulmefrin and sulfadex, stable

solutions of sodium sulfathiazole, are now on the market.

Some surgeons do not operate on cleft palates during the winter months. The author does not follow this procedure. Undoubtedly the babies are more prone to colds in winter, but his success has been just as complete in winter as in summer. Many articles have been written about the optimum time for closure of cleft lips and palates and just as many excuses have been offered for choosing different ages.

An experienced surgeon knows when he will be most successful with a certain piece of work and this should be the guide in setting the time for operation. The older the baby the easier is the work for the surgeon, but the more certain also that some inherent qualities are lost. The older the baby the more bad habits have been formed. These factors lead one to close the defects as early as possible. This is good logic and must be decided by the success one has had at a definite age. The problem is unlike that of a broken bone or a bad laceration on the arm or leg, which, even with a poor correction and an imperfect result, allows the patient to carry on. A bad facial blemish or a defect of speech through life is very serious. Babies are born with certain inherent qualities and they retain all these qualities if allowed to develop normally. The loss of some palatal or lip tissue is detrimental in some cases. This is a challenge to a man doing this type of surgery, for he should aim for 100 per cent success wherever possible. An operator who defers these operations to ages ranging from 16-18 months, to what is much worse, 5 or 6 years of age, often has done irreparable harm.

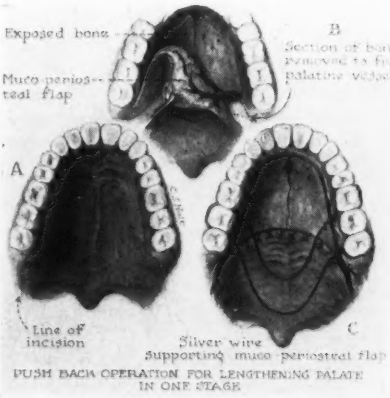
THE author knows that all these babies and children have:

1. Lost some inherent qualities, such as:
   A. All fine, coordinated movements of the lips, the tongue, the superior constrictor, the palate, the cheek, etc.
   B. Speech defect is the result.
2. Otitis media develops due to lack of ventilation of the middle ear. Some of the muscles of the palate have their origin in the cartilaginous portion of the eustachian tube, and if they can not function, prevent proper ventilation of the middle ear.
3. Chronic otitis media leads to chronic progressive deafness.
4. Improper warming and moistening of the respired air produces an atrophic pharyngitis.
5. The entire life of the patient may be ruined by poor management of the operation and poor after care.
6. These people cannot meet the keen competition of today if they are so handicapped.
7. An inferiority complex develops in at least 80 per cent, for which the facial blemish and speech defect are principally responsible.

All the detrimental features mentioned above can be eradicated by good surgery done early. Operative care of the baby, making it anatomically perfect before it is 6 months old, is paramount. Closure of the palate before the baby is from 4 to 6 months old goes far to insure normal speech.

Early, complete and proper antagonistic action of palatal muscles can not be stressed too much. If this palatal closure is accomplished at 6 months of age, the palate will

Figure 13. Push back operation for lengthening palate in one stage.



PUSH BACK OPERATION FOR LENGTHENING PALATE IN ONE STAGE

be stretched many times by the baby swallowing, which action tends to lengthen the palate every time the mechanism is set in motion. If this desired effect of stretching the palatal tissue is started by palatal closure at 5 or 6 months of age and continued to 18 months, surely there is a very beneficial effect. This is shown in length of palate and perfect speech when the child learns to talk.

MUCH can be done for speech defects by surgery and instruction. The surgical correction of a short palate is best accomplished by one of several methods. The Dorrance[11] pushback operation is one of them and is done in two stages. This transposes backward the entire palate, giving additional length of ¼ inch to one inch to this structure.

In 1936 Brown[5-6] described the lengthening of palates by dissecting all of the palatal tissue from the bone and setting the flap back so that the anterior border of the flap is attached to the posterior border of the bony hard palate. In this way an added length of soft palate is obtained equal to the amount of bone uncovered. The greater palatine vessels are conserved in this dissection,

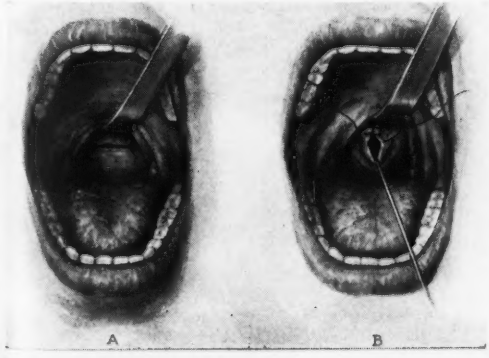
The author has found this method very satisfactory in some cases because the palatal tissue does not get so heavy as in the Dorrance operation. When he uses the single palatal setback, he also cuts the bone away around the greater palatine vessels, and in some cases dissects out the artery from the palatal flap to get more freedom. The anterior border of the palatal flap is sutured very carefully to the distal end of the hard palate with 6-0 nylon suture material, and in older children or adults, a silver wire splint is fastened to the teeth and is arched as shown in the accompanying diagram, to hold back the palatal tissue still farther until it has thoroughly healed. This prevents much of the shortening which would likely take place if the splint were not used. (Fig. 13)

By this method less scar tissue results, a more pliable soft palate is produced and the closure of the wide nasopharyngeal space is facilitated. Many surgeons claim the preservation of the arteries will prevent the elongation of the palate. With the technic just described, I am sure they will agree the palate is markedly elongated. If the principal blood supply is cut at the time of operation it is best to use the delayed flap method of Dorrance.[11] If the arteries have been cut previously, it may be possible to do a direct setback if the blood supply is found to be adequate. This wide dissection will not interfere with the levator or sphincteric action of the musculature.

The splitting of pillars and union of tissue below the level of the uvula should be discouraged because of the lack of function and the formation of a more membranous sheath without action. True, this membranous sheath is better than no tissue at all or an obturator. This tissue can usually be placed there if the direct flap method is used and, if that is not sufficient, then Brown's[5-6] technic of "double elongation of partially cleft palates with complete clefts" surely will give sufficient length to facilitate good speech and deglutition.

All of the foregoing corrections must be completed for perfect speech, including a perfect contact of the palatal surface with the posterior wall of the nasopharynx.

Fig. 14. Reefing operation to produce Passavant's cushion.



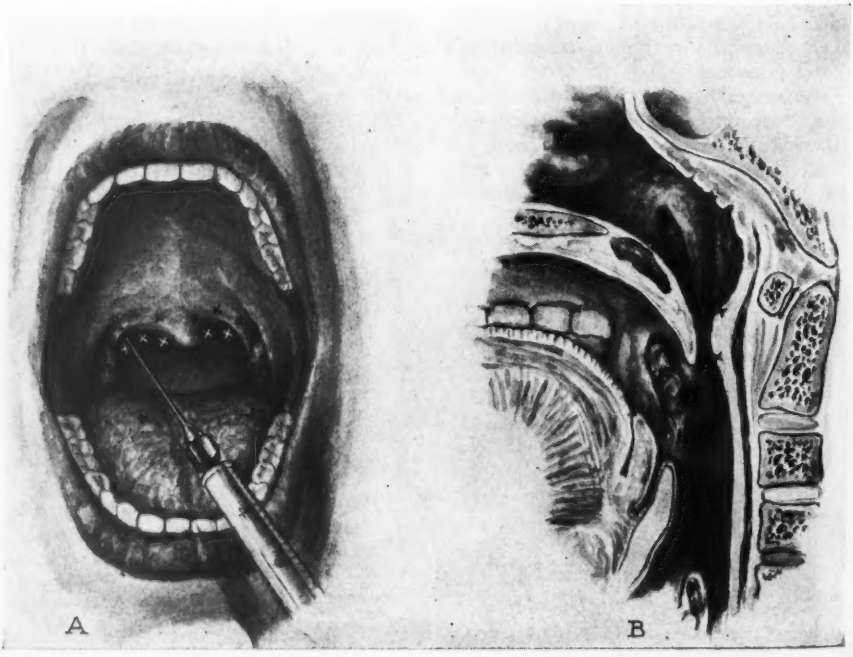
IN 1869 Passavant described a muscular body or what he called a "cross-roll" on the posterior wall of the nasopharynx. He took the position that this is essential for perfect speech. These observations were made on an individual with a cleft palate which made it easy to see this portion of the anatomy. This muscular body was apparently not discussed further until Wardhill (29) in 1929 said his colleague, Whillis (29), had discovered muscle fibers in this region which caused this bunching to occur. In 1930 Whillis called this ridge the "palatopharyngeal sphincter."

Passavant's cushion or Jacobson's valve is enlarged, if needed, by bunching the superior constrictor muscle. This is beneficial when the nasopharyngeal space does not close as it should. (Fig. 14)

Make a horizontal incision on the nasopharyngeal wall about the level of the lower border of the soft palate and dissect the tissues well in all directions for about 2 cms. from the incision. Close the incision in a vertical direction thereby narrowing the entire nasopharynx. The closer the pillars are brought together and the narrower and smaller the entire nasopharynx is made the easier it will be to get rid of the nasal tone.

The third method of closing or narrowing the nasopharyngeal space is the injection method, devised by the author. This consists of depositing one or two cc. of a mild sclerosing agent into the superior constrictor muscle on the posterior nasopharyngeal wall and pillars, which allows contact of the soft palate and therewith perfect speech. This thickening of the musculature does not last if only one injection is made, hence a series of 4 to 6 or 8 injections at weekly or biweekly intervals may be necessary. A recording of the voice should be made before treatment is started and again when the treatment is completed. As a rule, there is a decided improvement in speech

Fig. 15. Injection method to produce Passavant's cushion.



after the first treatment which is partially lost in a few days due to subsidence of the reaction. (Fig. 15)

Subsequent injections fortify the first injection and make the results lasting; viz., a permanent thickening representing Passavant's cushion.

A BABY properly handled cannot appreciate what has been done for it but the parents see and note the change as the baby attains normalcy. The fact that the baby appears normal at three weeks of age after the first operation and the mother no longer has feeding problems when the palate is closed at three to six months of age, surely is a great relief for the mother. To be able to give the parents reasonable hope when you see the child soon after birth that they will have a perfectly normal child by the time it is four to six months of age, is also a decided help to the parents. The obligation of the surgeon does not end when the child is four to six months old; he should watch its development, see that the jaws develop normally, and if the services of an orthodontist or a dentist are necessary, he should so advise.

Parents should be instructed to observe the voice and speech of their children for in many instances they will require speech therapy. In very young children early speech training by a speech specialist is desirable and necessary to instruct the mother in the development of good speech and voice patterns. In cases for whom surgery is delayed, it may be necessary to provide intensive speech therapy.

Cleft palate cases may show a hearing loss which frequently remains unrecognized until hearing tests are administered. For this reason, the author recommends, in addition to a speech examination, that a diagnostic hearing test be given.

The prognosis in all these cases is good when the process of construction is carried out with forethought and skill.

TO summarize, the most important factors in obtaining good results in cleft lip and palate surgery are:

1. Sit down to do your work.
2. Start at three to four weeks of age for cleft lips.
3. Start at three to six months of age for cleft palates.
4. Baby to be of proper weight for age.
5. Diet must agree with baby.
6. Palates to be done with baby in the Trendelenburg position.
7. Use Anthony aspirator instead of sponges for bleeding.
8. Complete relaxation of tissues.
9. Conserve blood supply.
10. Use the very smallest of needles and suture material.
11. Baby should not be older than six months for palate closure unless a serious dietary or weight problem interferes.
12. Winter is no excuse to defer an operation.
13. Palatal failure is due to technic, tension and blood supply, not infection.
14. Postoperative treatment, as described, extremely important.
15. Place baby on side when returning from operating room so no blood or mucus will be inhaled or swallowed.
16. Fluid 30 minutes postoperatively; all baby will tolerate.
17. Regular diet three hours postoperatively.
18. Thin cereal to be given if baby can swallow it.
19. Allow no one to look at the palate with a tongue depressor until packs or sutures are to be removed.
20. Nasopharyngeal catheter for oxygen taped to face and nose if respiratory embarrassment is present. Small oxygen tent if necessary.
21. Aspirator to be in room at all times if it is likely to be called for.
22. Adhesive tape on lower lip if it is sucked in and blocks respiration.
23. Tongue suture to be removed when baby is fully awake and breathing normally.
24. Sedation paramount first week postoperatively in the case of palates.

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ATYPICAL PNEUMONIA

Howard Beakey, M.D.
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SEVERAL years ago the medical profession had no specific methods of combating pneumonia, and treated it symptomatically. Pneumococcus antiserum and the classification of pneumococci revolutionized ideas about the disease. Then came the sulfonamides with their almost miraculous results in pneumonia caused by the pneumococcus, staphylococcus and streptococcus.

Sulfonamides had their toxic phases, but most of these could be eliminated by proper administration of the drugs; and especially by frequent blood and urine analyses. Sulfonamides were more practical than antiserum, but the profession is still cognizant of and on the alert for their dire effects.

Penicillin came at the opportune time, and it has been the answer to our desire to supplant the sulfa drugs. Pneumonia uncomplicated and even complicated was a disease that responded to penicillin, or to sulfonamides, in 36 to 96 hours.

HOWEVER, in the last few years with increasing incidence, a strange type of pneumonia has rolled into our midst. Until very recently this disease, called "Primary Atypical Pneumonia," did not respond to antiserum, the sulfonamides or to penicillin. However, in late December, 1945, several cases of this disease gave very favorable reactions to these drugs.

Primary atypical pneumonia differs in etiology, signs, symptoms, course, laboratory and roentgen-ray findings from the previously accepted thought of pneumonia. Even terminology has furnished many synonyms, such as: Virus pneumonia, acute influenza pneumonia, broncho-pneumonia (variety X), acute pneumonitis, disseminated focal pneumonia, bronchiolitis, and interstitial pneumonia.

Perhaps the disease is caused by a collaboration of the ordinary bacteria commonly found in the upper respiratory passages during an infection so localized. Their virulence may have increased to such an extent that individual immunity has been overcome. Experimentation has failed to find a truly susceptible animal. The report of the Commission on Acute Respiratory Diseases of May, 1945 states that no work has yet been reported, and confirmed by other investigators in the field, which describes the isolation in animals of an agent clearly related immunologically to the human disease.

The same Commission demonstrated that primary atypical pneumonia could be induced with bacteria-free filtrates of sputum and throat washings, as well as with the same inoculum before filtration. Autoclaved material was without effect. The Commission decided that primary atypical pneumonia was at least initiated, if not caused, by a filter-passing agent, presumably a virus.

IN reporting this small series of 68 cases from the records of St. Mary's Hospital, we have eliminated all cardiacs with passive congestion and all cases where the exclusive pneumonic pictures could be obscured or confused. Only patients above twelve years of age were considered. At least 150 cases were excluded because of disqualifications. Also, not included in this group of atypical pneumonia are those non-bacterial pneumonias caused by a known virus or rickettsia. Among these are the influenza virus of Smith, Andrews and Laidlaw, or "Virus A," associated with the staphylococcus or with the hemolytic streptococcus as a secondary invader; and the rather recently found "Virus B."

Psittacosis pneumonia is due to exposure to infected parrots, and caused by the coccoid-bacillary bodies, which are questionably virus bodies. This has a higher mortality than atypical pneumonia. Lymphogranuloma venereum, trachoma and in-

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clusion blenorrhea seem to have an antigenic relationship to the virus of psittacosis; however, they are susceptible to chemical therapeusis.

According to some authors many pneumonias in the New York area have been due to the virus of ornithosis.

Typhus and Rocky Mountain spotted fever are the most common of a large group of virus diseases with pneumonic signs. Then, there is "Q" fever, thought to be due to the *Rickettsia diaporica,* which does not agglutinate *B. Proteus* X19, known as the Weil-Felix reaction.

STRANGE as is the etiology, so is the atypical pneumonia in its characteristics. The actual chest pathology is often preceded by an upper respiratory infection. Chilliness, malaise, headache, fever and muscle soreness are experienced. Then, a dry irritating cough becomes most distressing and almost baffles therapeutic measures. It is paroxysmal, non-productive, weakening and inhibits sleep. A sharp frontal headache is made excruciating by the cough. Later in the disease the cough becomes productive of plain mucus or discolored sputum, but not of the typical prune-juice that is seen in pneumococcus pneumonia. It is most noticeable that vomiting and diarrhea sometime obscure the initial respiratory findings.

Commonly the appearance of the patient is deceptive. Prostration is of variable quality; malaise is severe—circulatory collapse is unusual. There is little cyanosis, the pulse remains not too rapid, and dyspnea is rare in the uncomplicated cases. The debilitated rapidly become weak and seriously ill.

A congested pharynx with a postnasal drip and distressing spasms of the pharyngeal muscles and a painful laryngitis are common. Examination at this stage reveals little, or no, pulmonary pathology, perhaps some dullness over a certain area and nothing else. However, an x-ray of the lungs discloses exaggerated hilar shadows on one or both sides of the lungs. Commencing in the prehilar region the process can be seen to spread fan-shaped toward the periphery of the lung field. The shadow is soft and either patchy or homogeneous; atelectasis is suggested. The process may affect one lobe or combination of lobes. For some reason the right lower lobe seems particularly susceptible to this infection.

The duration of fever is variable. In our series it was 8 days. Termination is by lysis. There may be recurrent elevations after intervals of days due to a recrudescence of the disease. Then again the fever may continue for many days or a few weeks with no change in physical or x-ray findings.

Frequently the early stage reveals little or no pulmonary clinical signs except showers of râles. Later in the afebrile stage, moist subcrepitant râles are easily audible. Strange to relate many of these râles are present when the patient is out of bed, walking around, and the x-ray shows clear lung fields. Recurrences are common. Pleural reactions are few. Fatalities are rare in the uncomplicated cases. Mortality was severe in the aged and in the cardiacs.

If the activity of the pneumonia lasts 6 or 7 days the disease may increase very severely and suddenly. This is due to a secondary invader and an extension of the pathology into the lung parenchyma. This is a phase where pencillin and sulfa drugs may be of great value.

By the process of elimination we diagnose atypical pneumonia. X-ray findings are characteristic and have been described. Blood cultures are negative. The leukocyte count was between 4,900 and 10,550 in this series. Culture and microscopic examination of the sputum yielded no predominating organism and no pneumonia typing.

These atypical pneumonias are easily mistaken for a tuberculous infection, due to roentgen-ray findings, absence of leukocytosis and their course. The patchy areas in the lungs are slow in changing and loath to disappear. Often serial x-rays over many weeks are required to eliminate the ever-present thought of tuberculosis. Frequently convalescence is very prolonged, the patient complaining of muscle pains and weakness with persistent cough for two or three weeks, after he is migratory.

As mentioned, secondary invaders are not uncommon in atypical pneumonia. Pneumococci are rare; streptococci and staphylococci are found, but bear no relation to the disease.

THE description of the pathology is taken from Golden in the *Archives of Pathology:*

(1). An acute bronchiolitis focally distributed in which desquamation of the mucosal surface occurred early.

(2). The lumen of such bronchioles contained frank pus, mucoid fluid and desquamated epithelial clusters or single cells; sometimes in an advanced stage of disintegration.

(3). Bacteria in small numbers and not of uniform type could be demonstrated in the bronchiolar pus in some cases; in most cases none could be found.

(4). The bronchioles were dilated, sometimes markedly, even in cases in which death occurred early in the disease.

(5). The walls of such bronchioles were infiltrated chiefly with mononuclear cells, which extended radially into the regional interstitial tissues of the lung, namely, the peribronchiolar tissues, the alveolar walls and the pulmonary septa.

(6). The alveoli either contained air or were collapsed, and differed from those involved in the bronchopneumonia and lobar in being relatively free of polymorphonuclear leukocytic exudate.

(7). Such areas failed to reveal microorganisms on tissue section.

(8). With the advent of secondary invasion, the gross and microscopic pictures were altered. In some cases it was possible at autopsy to discover areas of acute interstitial pneumonitis adjacent to zones of actual bronchopneumonia, lobar pneumonia or pulmonary abscess.

The apparent freedom from bacteria in tissues where round cell exudation is seen contrasts markedly with the ease of demonstration of microbial forms as soon as bronchopneumonia, lobar pneumonia or abscess formation appear. The pathological picture resembles influenza and measles.

CONCERNING treatment, one definitely can say there is no specific therapy. Very many of our cases have recovered with none, except an expectorant and bed rest.

There is a difference of thought in the use of penicillin and the sulfonamides. Until late in December, 1945, these atypical pneumonias resisted these drugs. Then, classical cases of this disease showed characteristic temperature drops with penicillin or sulfonamides. It may be that a predominating organism is killing the weaker group germs, and that this surviving organism is producing the disease. Also, the early cases may have had immunity to the specific drugs, and may have lost this immunity.

Rheumatic pneumonia can easily be mistaken for atypical pneumonia. Salicylates and acetylsalicylic acid have been tried. While an occasionally good result was obtained, it seemed evident that the results were individual and not universal.

Penicillin inhalations have proved of considerable value in certain types of the disease. Where the cough was croupy and non-productive with severe laryngeal and bronchial spasm, and a persistent tracheitis was present, these inhalations aided greatly. I believe much can be expected of such inhalations in pulmonary diseases of an infectious nature.

Penicillin, when used in our cases, was given intramuscularly in dosages of 10,000 to 30,000 units every three hours. Lately, a single dose of 300,000 units of penicillin in peanut oil intramuscularly has been tried in several cases. As no controls were followed, and as no blood levels were made, I am not in a position to draw reliable conclusions. However, we have always hesitated to rely on this one large dose in very sick patients.

Definitely we have observed that elderly, or debilitated, or cardiac patients require a much longer period of penicillin therapeusis than the otherwise healthy young adult. Shortening this period has resulted in many recurrences and myocar-

—Concluded on page 92

EARLY AMBULATION IN GYNECOLOGY AND OBSTETRICS

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THE purpose of this paper is to report the results in 255 laparotomies, 44 vaginal procedures, and 148 private vaginal deliveries in which six to eight-hour ambulation was carried out.

Nine years ago the writer began getting his patients out of bed on the eighth postoperative day to observe the effect, if any, following this practice. The ultimate object was to get patients out of bed as early as they could tolerate it. Through the years the time of arising from bed has been gradually brought down to six to eight hours. The thought behind the practice was to stimulate circulation throughout the body, particularly in the pelvis and lower extremities, by active motion, and to increase the depth of respiratory excursions and thus possibly obviate the occurrence of hypostatic pneumonia, phlebitis and embolism.

Laparotomies (Private and Service)

Two hundred and fifty-five cases grouped as follows:

Supravaginal hysterectomy	105
Panhysterectomy	11
Myomectomy	16
Salpingo--oophorectomy	25
Cesarean section (low flap)	16
Cesarean section (classical)	5
Oophorectomy	15
Kelly plication of round ligaments	4
Gilliam suspension of uterus	3
Ligation of varicosities of broad ligaments	2
Salpingectomy	3
Resection and suspension of ovary	1
Appendicectomy	41
Bilateral salpingo-oophorectomy with resection of sigmoid	1
Exploratory laparotomy	1
Removal of mesenteric leiomyoma	1
Intestinal obstruction (release of adhesions)	3
Direct inguinal herniorrhaphy	2
Total	255

IN the main, the anesthetic of choice was cyclopropane with 1 per cent novocaine infiltration of the muscles subjacent to the fascia, preceded by sodium amytal grs. vi, morphine sulfate gr. ¼, and scopolamine hydrobromide gr. 1/100.

In closing the abdomen, with the exception of the McBurney incisions, alternating interrupted sutures of No. 2 chromic catgut and linen were used, about one-quarter of an inch apart, for closure of the fascia (the peritoneum being previously closed with No. 2 plain catgut, single strand), and No. 2 plain catgut, continuous, to unite the subcutaneous tissues. The last-mentioned stitch is continued in reverse fashion as a subcuticular stitch in the skin, the end being tied to the opposite end in the superficial fascia. This type of closure produces a satisfactory cosmetic result. No stay sutures are used. Hemostasis of the abdominal wall is assured by a tight gauze and adhesive dressing, care being taken to see that there is no interference with diaphragmatic excursions, by leaving the upper adhesive strip somewhat looser. To avoid urinary retention an ounce of 0.25 per cent aqueous mercurochrome solution is then instilled into the bladder through the retention catheter, which is now removed.

On return to bed the patient is given 1/6- or 1/4-grain of morphine sulfate on reaction, which is usually prompt. One thousand cc. of 10 per cent glucose in saline and 5 cc. of suprarenal cortical hor-

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mone are given intravenously. A short time after the patient is out of the blankets, the head of the bed is raised and the knees are elevated. The patient usually voids promptly and continues to void.

At the end of about six hours and prior to getting the patient out of bed, a tight scultetus binder is applied over the adhesive dressing and the patient is gradually sat upright in bed over a period of ten or fifteen minutes, so as to avoid dizziness and syncope when she is gotten up. She is now removed from the bed with the assistance of two nurses and helped to walk a half-dozen steps and is placed in an armchair and is well blanketed. She is encouraged to breathe deeply and sniff aromatic spirits of ammonia and is left in this position for twenty to thirty minutes. At the end of this period she is walked back to bed. There is no ill effect on the pulse, respiratory rate or blood pressure, and in many cases it is possible to encourage the patient to walk about the room with assistance. In elderly patients this procedure is repeated during the night of the operative day. It is much easier to get patients out of bed on the day of operation, while they are still confused by pre- and postoperative sedation, than it is to get them up the morning of the day following operation, for the first time. Having gotten up the night before, the patients vaguely realize that they have been up and consequently do not offer objections, as is the experience with those who are gotten up after twenty hours.

On the day of the operation and the day after patients usually complain of annoying pain in the wound area. For this they are given 1 grain of codeine phosphate hypodermatically every four hours if necessary.

In this series "gas pains" were usually mild, there being only three instances in which they were at all annoying, requiring extraordinary aid. The Harris tidal stand is used on occasion.

Nothing is given by mouth for twenty-four hours postoperatively; during this time 1,000 cc. of 10 per cent glucose solution, without saline, is given intravenously.

If at the end of twenty-four hours the patient is tolerant, tap water is given for a second twenty-four hours. This being tolerated, a soft diet is instituted on the third day, followed by a regular diet.

On the first day after operation the patient is encouraged to walk about the room and, if possible, in the corridor, with assistance. Usually on the second day, when most of the pain has subsided, the patient is able to walk, unaided, on at least three occasions during the day, accompanied by a nurse. On the following day, as the patient's strength warrants, she is allowed bathroom privileges. Weather permitting and the patient being agreeable, she is permitted on the lawn.

Morbidity

ALL immediate postoperative temperatures are taken by rectum. The Manual of Hospital Standardization of the American College of Surgeons shows no standard of morbidity. In this study the morbidity has been divided into periods varying from two to eleven days, using a temperature of 100.4 by rectum as the norm.

There were 22 wound infections, 11 with and 11 without rise of temperature. The afebrile patients largely had a very slight discharge from the wound for a short time.

Seventy-four patients ran a temperature on two successive days only, not including the day of operation. These temperatures were usually on the first, second or third days after operation and were so frequent as to seem normal. In this group the morbidity was unexplainable except for an occasional wound infection, when the rise of temperature, as a rule, appeared after the fifth day.

Twenty-three patients had a rise of temperature for three or more days. In the three-day group, one patient had a degenerated fibroma with an omental abscess, one had acute bronchitis, one atelectasis, one gangrenous appendicitis and the other purulent appendicitis.

In 5 cases there was a 4-day morbidity. In this group one patient developed pneumonia three days postoperatively, one had

chronic pelvic inflammatory disease, and in the other 3 cases the rise of temperature was unexplainable.

There were 5 instances in which there was a morbidity of 5 days. Two of these were wound infections, one was a cystitis, one an acute bronchitis and the other chronic pelvic inflammatory disease.

Two patients had a morbidity for 6 days. In one of these the cause of the rise of temperature was a wound infection and, in the other, bronchopneumonia which developed on the eleventh postoperative day.

There were 4 cases in which there was a morbidity for 8 days, two due to a wound infection, one to atelectasis and one to pneumonia, which began on the eleventh day.

One patient had morbidity for 11 days, due to late pneumonia, which appeared on the ninth day.

There was one death in the series. A cardiac with adenocarcinoma of the uterus and pyometra, who died on the third postoperative day, could not tolerate ambulation.

Vaginal Procedures

(Private and Service)

Vaginal hysterectomy	6
Various plastics	38
Total	44

There were five morbidities.

Obstetrics

Deliveries From Below (Private Patients)

THERE were 148 vaginal deliveries on private service of the writer. These patients were gotten out of bed in approximately six hours.

There were 41 first degree perineal lacerations, 16 second degree lacerations, 9 median episiotomies, and 49 mediolateral episiotomies.

In order to avoid procidentia, immediately after delivery two or three vulvar pads are placed across the midline of the abdomen, just above the symphysis, and these are strapped tightly in place with two-inch adhesive strips, which extend from one hip across the abdomen to the other. The purpose of this is to hold the fundus uteri well up in the abdomen and thus obviate the possibility of prolapse. This may be unnecessary, but the writer has had no experience without it.

The patient is gotten out of bed in approximately six hours, after first being sat up to overcome any possible dizziness or faintness. The practice is to get her out of bed three times a day and on each occasion she is encouraged to take a few steps about the bed. At this time a slightly increased lochial discharge is noted, but this is nothing more than the fluid which has been retained behind the perineum. This is beneficial inasmuch as it provides better vaginal drainage and may be a factor in perineal repair and low morbidity. After the end of the fifth day the patient is allowed to walk in the corridor and permitted bathroom and shower privileges, the abdominal adhesive strips and pads being removed at this time.

Of the 74 major perineal repairs, in 72 No. 2 *chromic* catgut was used for the subcuticular suture. No. 2 *plain* catgut was used experimentally in 3 mediolateral episiotomies. In 2 of these the skin edges separated at about the fifth day, but there was no evidence of breakdown of the deeper tissues. In these cases it was necessary to resuture the skin with horsehair, after which healing was complete. Apparently the No. 2 plain catgut absorbed before the skin edges had healed sufficiently to tolerate the act of walking.

One patient had postpartum hemorrhage after ambulation. She was a multipara and had had the same experience three years before during the orthodox ten-day period of rest in bed. The hemorrhage was not believed to be due to retained placental tissue. However, the cause of the hemorrhage was not determined.

The Mayes prophylactic use of mercurochrome intra- and postpartum was followed in all cases.

Morbidity

THE standard of morbidity followed was a temperature of 100.4 Fahrenheit, by mouth, on two successive days, not including the day of delivery.

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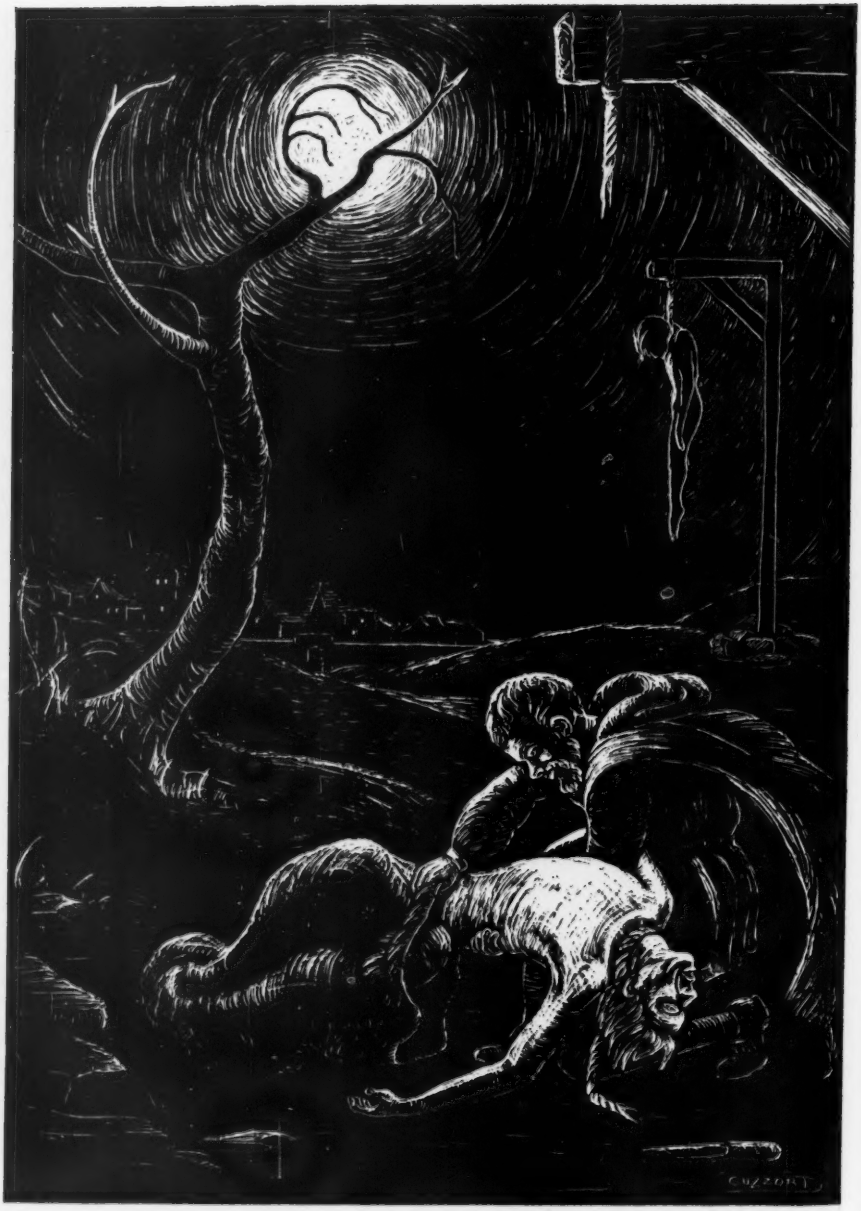

Vesalius Robs the Gibbet at Montfaucon

CULTURAL MEDICINE

VESALIUS, FIRST MODERNIST IN ANATOMY

THE great work of Vesalius — *De Humani Corporis Fabrica Libri Septem*—was published in 1543. It was the first *complete* and *accurate* record of the body's structure. Vesalius met with great opposition in his work, chiefly from the universities, for the faulty teachings of Galen and Aristotle held sway with all the force of dogma and were not to be challenged lightly. Andreas Vesalius of Brussels and Padua was not just a great anatomist; he was the John Baptist of modern medicine itself; and as such deserves special acclaim. He was obliged to steal his bodies, during his Louvain and Paris periods. In Paris he hunted his prey by night at Montfaucon, where criminals were hung from gibbets. In Louvain he discovered that the more celebrated criminals were roasted alive by a slow fire as they hung chained to the stake, and that the fowls of heaven, greatly taken by the dainty cooked dish, picked their bones so clean that much trouble was saved to medical marauders like himself who might desire dazzling skeletons for the study of osteology.

We have chosen the Paris period for our illustration.

The significance of Vesalius for the modern world is well set forth by Lloyd W. Taylor of Oberlin College in the February, 1946, *Scientific Monthly:*

> The very mold in which all modern thinking is cast was shaped in large measure by such men as Copernicus, Galileo, and Vesalius in the sixteenth century, and the oftener and the more emphatically we say it and tell why, the better. Prior to their time all technological advances were thought of in terms of necromancy—black magic. These men, together with their contemporaries and successors, re-established the faith which had died with the Ionian Greeks, faith that the world was knowable to any man of intelligence, not merely the world of art and literature but the world of nature as well. That conviction had been lost for a thousand years, an era which we now call "the dark ages." When it was regained, a world that had been palsied for a millennium began once more to move forward with the might and majesty that only a deep and abiding faith in its own potentialities could have generated.
>
> A. C. J.

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Expansion at Western Reserve

THE Elisabeth Severance Prentiss Foundation of Cleveland has made a grant, which will probably amount to $500,000, to finance a greatly expanded department of biochemistry in the School of Medicine, Western Reserve University.

An "outstanding man" in the field of biochemistry will be employed as head of the department with an able corps of assistants. The money will be paid to the university in quarterly payments over a period of 10 years, "subject to certain conditions."

The chair of biochemistry was left vacant recently with the appointment of Dr. Victor C. Myers as head of a new department of clinical biochemistry. Operating the two new departments, the School of Medicine will follow the British pattern of having one department of biochemistry to carry on research and give instruction in chemistry as it affects all forms of life, and another to perform a similar function as it affects more direct clinical observation and diagnosis of human illness.

CONTEMPORARY PROGRESS

SURGERY

Thiouracil—Its Use in the Preoperative Treatment of Severe Hyperthyroidism

F. H. LAHEY and his associates (*Surgery, Gynecology and Obstetrics,* 81:425, Oct. 1945) report the use of thiouracil in the preoperative treatment of severe hyperthyroidism at the Lahey Clinic. This method has been used in both primary hyperthyroidism (Graves' disease) and adenomatous goiter with hyperthyroidism. In both types of cases, thiouracil brought about a remission in patients who were dangerous risks or so toxic that multiple stage procedures would have been necessary without this preparation. With the use of thiouracil, two-stage thyroidectomies have been entirely eliminated at the clinic. In the 190 cases in which thiouracil has been used, the average duration of the hyperthyroidism was 24 months, and almost half of the patients had had the disease for over two years. The average basal metabolic rate was +49 and 54 patients had a basal metabolic rate of over +45. Most of the patients were ambulatory during the preoperative treatment, although those with associated cardiac failure and other very ill patients were first treated in the hospital, but later could be treated at home. All patients had routine examinations and white and differential blood counts every 10 days to 2 weeks. Patients treated at home were instructed to call their physician at once if any symptoms of toxic reaction occurred. Thiouracil was given in a total daily dose of 0.6 gm., in 3 doses of 0.2 gm. each. Treatment was continued until the basal metabolic rate became normal and the symptoms of hyperthyroidism subsided. The time necessary to obtain this degree of improvement and make thyroidectomy safe could be calculated as one day of treatment for each percentage of elevation of the metabolic rate, i.e., 55 days of treatment if the basal metabolic rate was +55; patients who had been given iodine (Lugol's solution) previously required a somewhat longer period of treatment. When thiouracil was first used, it was found at operation that in cases of primary hyperthyroidism, the thyroid was soft and friable, and bleeding was difficult to control. Since this was evident early in the series, Lugol's solution has also been given for three weeks immediately preceding operation; for 2 weeks with thiouracil, but for 1 week just before operation without thiouracil. In cases of adenomatous goiter this supplementary use of iodine is not necessary. In patients adequately prepared for operation with thiouracil, the pulse rate and blood pressure remain constant through the operation and no signs of toxicity develop. There are also no reactions in the postoperative period so that intensive therapy with sedation, intravenous fluid and oxygen becomes unnecessary. There were no postoperative deaths in the series reported. Histologic examination was made of the thyroids resected from 77 patients, 12 of whom had been treated with thiouracil alone, and the remainder with thiourical and iodine. No specific histological effect of the thiouracil could be demonstrated in any of the specimens, which naturally would not show the increased vascularity of the gland noted at operation. In the cases in which iodine was used with thiouracil, most of the specimens showed histologic evidence of involution, but the occurrence of involution was not so constant as in cases in which iodine alone had been used. The exact mechanism of the action of thiouracil on the thyroid is somewhat in doubt, but recent studies have indicated that it interferes in some way with the synthesis of the thyroid hormone and decreases the amount of iodine in the thyroid.

COMMENT

Dr. Lahey and his associates in this article have contributed a timely, worth-while contribution to the literature on the toxic thyroid. It should be read and studied by all practi-

tioners having to do with the treatment of the goiter patient. The management of the patient with toxic goiter has progressed well away from the days of simple vessel ligation, the injection of boiling water into the thyroid lobes and multiple stage operations. The use of Lugol's solution in preoperative care was a further step in the right direction. Now "something new has been added." Thiouracil, a potent bio-chemical agent, has been introduced. Clinical experience has shown that it does reduce the elevated metabolic rate of hyperthyroidism to normal if it is administered over a sufficient length of time. In addition there is a gradual disappearance of all hyperthyroid manifestations except pronounced eye signs. In this very complete and exhaustive report of its clinical use over a period of two years the authors discuss clinical observations on severely toxic goiter cases prepared for operation with thiouracil. A comparison was made of the action of Lugol's solution with thiouracil on the gland and pathological observation on thyroid tissue removed at operation treated preoperatively with thiouracil alone, and in combination with Lugol's solution. The combination of Lugol's solution and thiouracil in the preoperative care seems to be of undoubted advantage. The patient more rapidly attains the improvement requisite for operation and at the same time the vascularity of the gland is reduced, rendering it less friable and therefore more suitable for operative attack.

Dr. Lahey confers a signal service upon us all when he emphasizes the dangers inherent in the indiscriminate and haphazard use of this very potent agent. Repeated blood examinations including carefully done differential counts are essential if the occurrence of granulocytopenia is to be avoided. Surgeons have noted the ill effects from the careless prescribing of Lugol's solution in thyroid disease, but those ill effects are as nothing compared to the tragic possibilities from ill-advised use of thiouracil. The warning is particularly timely inasmuch as the drug, previously distributed for experimental and clinical investigation only, is now obtainable on the market and at the corner drug store on prescription. Finally it cannot now be stated that thiouracil is or will become a substitute for surgery. Clinical observation thus far rather refutes this contention.

T.M.B.

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Metallic Foreign Bodies and the Electromagnetic Locator

J. J. MOORHEAD (*American Journal of Surgery*, 69:306, Sept. 1945) describes the use of an electromagnetic device for locating foreign bodies. This method was first employed in 1941, but many improvements have since been made in the device. Its essential parts are a search probe (2 different sizes in the recent model); an instrument board with several knobs for adjusting the current and a dial indicator to register the approach of the probe to the foreign body; and a built-in amplifier of very high sensitivity with a small loud speaker to supplement the visual indications of the dial by sound. The apparatus can be used where an electric current is available; the present model operates on AC (100 volts) only; but special models can be made for DC, storage or dry batteries. This electromagnetic locator is very sensitive to the magnetic metals, iron and steel; the sensitivity to non-magnetic metals, copper, aluminum, lead and brass, is relatively slight, but a .45 calibre lead bullet is detected from about ½ to ¼ inch. Improvements in the detector for non-magnetic metals are being made. In using this locator, the probe is passed over the suspected area, and the point at which

the maximum response is obtained is marked on the skin. For surface localization, the probe is moved successively from two directions at right angles, marking lines to indicate the position of the two peak responses. For determining the subsurface depth of the foreign body, the best method is to use a metal sample, matching the foreign body as closely as possible as indicated by the x-ray film; the maximum reading over the marked spot on the skin is noted, and the metal sample held in the hand is approached to the probe until the same meter reading is obtained, and the distance between the sample and the probe recorded. The preliminary x-ray examination for localization of the foreign body should be made as close to the time of operation as possible. The patient should be placed on the operating table in the same position as for the x-ray examination. The surface location of the foreign body is determined with the indicator before the preoperative cleansing is done. The incision, preferably curved, is centered over the previously marked surface spot determined by the indicator. In order to avoid the use of metal clamps, the drapes are fastened to the skin by sutures, leaving the ends long to act as retractors. The probe of the indicator is covered with a sterile rubber protector, introduced into the wound and moved about, until the dial and sound registration of the instrument indicate the direction in which the dissection is to proceed to reach the foreign body. The field should be kept as dry as possible, using a suction apparatus if necessary. This method has proved of special value in locating foreign bodies in the eye, the heart and the lung, where localization has always been difficult.

Comment

Dr. Moorhead in the development of his electromagnetic locator has conferred a great boon upon any and all surgeons who may be called upon to localize and remove tissue-embedded metallic foreign bodies.

The article presents a very complete discussion of the many factors involved in locating such foreign bodies, describes his apparatus clearly and details the technic of its utilization. He very properly refers to the advisability on occasions of adopting a "let alone policy" rather than a "do something policy." He dispels the fear of direful consequences entertained by many patients regarding the meanderings of a metallic fragment. He reminds us that while it cannot be denied that wandering does and may occur at times, nevertheless it can be asserted that the general rule is for a foreign body to remain at the original site. The limitations of localization by x-ray are carefully explained and the danger of repeated or prolonged examination under the fluoroscope emphasized.

As one reads the article it becomes evident that familiarity with use of the apparatus is essential and that in its use "practice makes perfect." Certainly with this "super-gadget" in his armamentarium the surgeon can undertake the recovery of a metallic foreign body embedded in the body tissues, remote and illusive as it may prove to be, with decidedly more confidence and equanimity than ever before. He need not be too fearful as heretofore of the threat of a malpractice suit so frequently brought against the surgeon without justification.

T.M.B.

Coarctation of the Aorta; Experimental Studies Regarding Its Surgical Correction

R. E. GROSS and CHARLES A. HUFNAGEL (*New England Journal of Medicine,* 233:287, Sept. 6, 1945) report experiments on dogs in which it was found that a segment could be removed from the upper thoracic aorta or the aorta completely divided, and the vessel reconstructed by end-to-end anastomosis. Intravenous nembutal or inhalation ether anesthesia was employed in these experiments, with a tube in the trachea for administration of air under pressure while the left pleural cavity was open. A posterior approach in the fourth or fifth interspace was found to be preferable to an anterior approach. Clamps were made from straight gastro-enterostomy clamps, which would hold the aorta firmly without crushing it. The type of suture that was found most suitable was a continuous mattress suture placed so that the entire thickness of each end of the aorta was everted. Each stitch was made sufficiently taut and intima brought to intima, so that little if any silk showed on the internal surface of the anastomosis. After the anastomosis was completed, the clamps were removed from the aorta, beginning with the lower clamp. Unless this was

done slowly, there was a great increase in heart rate, indicating that the work of the heart was much increased. With the type of anastomosis described there was no blocking of the lumen of the aorta by clots at the site of the anastomosis. The results obtained with these experiments indicate that surgical treatment of coarctation of the aorta is possible when this condition causes serious symptoms. Aneurysmal dilatation of the aorta above or below the constriction may occur; a dissecting aneurysm may develop; rupture of the aorta occasionally occurs; *Streptococcus viridans* infection may be superimposed; and severe hypertension of the upper part of the body, with resulting complications, may develop. Operation has been done on 2 cases of coarctation of the aorta in human beings. The first patient was a boy six years old. The constricted segment was excised and the ends of the aorta sutured together. The patient was in good condition throughout the operation until the clamps were removed, when uncontrollable dilatation of the heart occurred and the child died. The second patient was a girl twelve years old, who had marked hypertension in the arms, no arterial pulsations in the groin or legs. At operation, the aorta was doubly clamped, the constricted area was excised, and end-to-end anastomosis done. The clamps were released gradually, taking fully ten minutes to release them completely, and there was no deleterious effect on the heart. The patient made an uncomplicated recovery and was discharged from the hospital on the 19th postoperative day in satisfactory condition, with the systolic pressure in the arms 140 and in the legs 145 and with good femoral pulsations. Examination of the segment of the aorta removed showed no opening between the two ends.

COMMENT

Modern surgical achievement in the field of thoracic surgery is emphasized by the subject matter considered in this article. Delicate intrathoracic procedures were performed on the experimental animal and the clinical experience of the authors with this particular technic in two patients, both children, was reported. The clinical problem happened to be coarctation of the aorta. In this condition, operation on the laboratory animal is associated with more difficulty because obviously no collateral circulation exists, whereas in the clinical patient collateral circulation has been developed to a greater or lesser degree. The authors have developed a technic of saturing which in their hands proved successful. The death of one child postoperatively they were able to explain, and by modification of their technic they prevented a similar mortality in the second child. Other authors have had similar success with the Carrel method used in arteriorrhaphy.

The authors suggest this procedure in cases of coarctation in the presence of serious symptoms. A list of possible symptoms and complications indicating operation is given. However, it would seem that this operation or a modification of it should be considered only when the outlook is grave, since many patients with coarctation of the aorta are said to have a fairly long life expectancy.

T.M.B.

Human Fibrin Foam with Thrombin as a Hemostatic Agent in General Surgery

O. T. BILEY and associates (*Surgery*, 18, 347, Sept. 1945) have carried out animal experiments with fibrin foam prepared from human blood plasma, and saturated with human thrombin. It was found that this material is an effective hemostatic agent in the liver, the peritoneal cavity, abdominal wall, kidney and lung. It was completely absorbed with only slight tissue reaction. Fibrin foam with thrombin has been used in 240 surgical operations; it has been most frequently used in operations on the liver and biliary tract because of the frequency with which bleeding occurs from oozing surfaces in operations of this type. Fibrin foam with thrombin has been found effective in controlling such bleeding and venous bleeding, including bleeding from wounds in hemophiliacs. Such bleeding is especially difficult to control by the conventional methods. The use of fibrin foam with thrombin, however, must not replace meticulous dissection and adequate sutures in the control of bleeding.

COMMENT

The authors present a magnificent contribution comprising experimental studies and details of the use of human fibrin as a hemostatic agent in general surgery.

They state with proper emphasis that complete hemostasis with minimal tissue injury is essential in all branches of surgery. It is granted that this objective may be obtained in many varied operative procedures. However, there remain certain situations in which the conventional methods have certain drawbacks or have proven hopelessly inadequate. It was in exploring new agents and new methods for certain peculiar situations that they hit upon fibrin foam obtained from the fractionation of human blood plasma. This fibrin foam becomes an effective absorbable hemostatic agent when soaked in human thrombin solution. It has been established that absorption of this agent is accompanied by only slight tissue reaction. Clinical application has proven its worth in controlling oozing surfaces and venous bleeding under a wide variety of circumstances. Oozing from beds of tumors or cut surfaces of parenchymatous organs respond most favorably. It has proven particularly efficacious where it is desirable to prevent injury to vital anatomic structures. In its clinical appliaction its greatest usefulness was demonstrated in neurosurgical procedures, chest surgery, visceral traumas and bleeding in hemophilia.

The authors detail the method of preparation and application of this agent; contraindications and pitfalls in its use are set forth. The article merits careful reading. The method, I am sure, will commend itself to every surgeon. The science and art of surgery is enriched by a contribution as excellent as this one proves to be. **T.M.B.**

PEDIATRICS

Celiac Syndrome: Dietary Therapy for Congenital Pancreatic Deficiency

DOROTHY H. ANDERSEN (*American Journal of Diseases of Children,* 70:100, Aug. 1945) reports 38 cases of congenital pancreatic deficiency treated at the Babies Hospital (New York) in the last six years. In 30 of these cases the diagnosis was made during life on the basis of the clinical picture, failure to demonstrate trypsin in the duodenal juice, and in most cases, excess of fat in the feces. The diagnosis was subsequently confirmed at autopsy in 6 of these 30 cases. In 4 cases, the diagnosis was made clinically without examination of the duodenal juice, but was confirmed at autopsy; in 4 cases the diagnosis was first made at autopsy. The diet employed in the treatment of these cases is of high caloric value, with low fat, high protein and carbohydrate and vitamin supplements. The protein intake is approximately twice the usual amount for the patient's age; the protein is given in the form of milk, cottage cheese, lean meat, fish and eggs. For young and marasmic infants protein milk is used, but for most infants over 1 year of age, skim milk is preferable. Carbohydrate is given to marasmic infants in the form of dextrose and bananas or banana powder; most infants, however, tolerate sucrose well; fruits and vegetables of almost all kinds are included in the diet for older infants; but starches in the form of potatoes, cereals and bread are limited. Supplements of vitamin A are essential and vitamin B complex is also given. Pancreatin is given in powdered form mixed with solid food; it is given in the milk formula only when protein milk is used. Cases were classified as of early onset, if the cough appeared before the age of 6 months. Of 20 patients in a previous series (untreated) with early onset, only 2 or 10 per cent survived the first year of life and none survived the fifth year. Of 26 patients with early onset in this series (dietary therapy) 14, or 54 per cent, survived the first year and 3, or 11.5 per cent, the fifth year; 8 of this group are living, 2 having passed the fifth year. Of the 16 patients with late onset in the previous untreated series, 10, or 62.5 per cent, survived the first year and 2 or 12.5 per cent the fifth year. In the present treated series, all of the 12 patients with late onset survived the

first year; and 9 are now living, 6 of them over the age of five years. There are 17 patients of the present series now living (43.7 per cent) at ages of one to twelve years. The effectiveness of the dietary therapy depends on the degree and type of respiratory tract infection when treatment is begun. When treatment is begun before the appearance of the cough or immediately after it, the patient attains normal growth and development. If the treatment is begun when the cough has become chronic but before suppurative bronchitis has developed, the usual result is prolonged survival with gradual improvement in the cough. If treatment is begun after suppurative bronchitis has developed, life may be somewhat prolonged, but the bad prognosis is not altered. The dietary regimen should be continued, as when it has been relaxed for several months in some instances, further infection of the respiratory tract has followed. While little difficulty has been found in carrying out the dietary regimen, the need for protecting these children against exposure to respiratory tract infections and parental anxiety may lead to "overprotection" and isolation of the child, so that emotional factors become an important therapeutic problem in the practical management of these patients.

Comment

Pediatric studies are gradually revealing the fact that celiac disease and pancreatic insufficiency (pancreatic fibrosis) are two distinct disease entities. Sidney Farber at the Boston Children's Hospital makes these points. In celiac disease there is nitrogen loss in the stool, a low rise in the vitamin A test, an abnormal glucose test curve and disturbance in the motility of the intestine shown by characteristic barium clumping.

Pancreatic fibrosis does not show the characteristic barium clumping. Pancreatic juice is scanty in both conditions but stimulation with secretin does not produce a rise in fibrosis as it does in celiac disease. In fibrosis the pancreatic acini are atrophied and dilated. The acini are filled with viscous material. Further, the salivary glands and liver are involved in the process. Later the respiratory tract becomes involved and there results a staphylococcus pneumonia. The cough in these children may resemble that of pertussis.

Finally on a high protein diet with carbohydrate furnished by bananas children with celiac disease usually recover while those with pancreatic fibrosis usually succumb. Improvement or failure to improve, then, in the course of a chronic intestinal condition, usually provides the proper clinical diagnosis. H.E.U.

Kernicterus; Neurological Sequelae of Erythroblastosis Fetalis

J. M. DOCTOR (*Journal of Pediatrics*, 27:327, Oct. 1945) presents a review of the literature on the relation of erythroblastosis fetalis to the pathologic lesion of the central nervous system known as kernicterus. Kernicterus was first described as a pathologic entity occurring in association with icterus gravis neonatorum. With the advance of knowledge in regard to jaundice of the newborn, and especially in regard to erythroblastosis fetalis and the Rh factor, more infants with jaundice of the newborn survive. And it is now recognized that many of these survivors develop clinical evidence of kernicterus with damage to the basal ganglia, i.e., extrapyramidal spasticity, athetoid and choreiform movements and emotional instability with various degrees of mental retardation. A study of 34 cases of jaundice of the newborn from the records of Children's Memorial Hospital (Chicago) is reported. Of these 34 cases, 20 were considered to be erythroblastosis fetalis, confirmed in 15 cases by a study of Rh factors in mother and child, and 15 were considered to have kernicterus (in 7 confirmed by autopsy). In 12 of the 20 cases of erythroblastosis fetalis or 55 per cent, there was pathological or clinical evidence of kernicterus, an incidence greater than that previously reported. Thirteen of the 20 patients with erythroblastosis fetalis have survived the neonatal period; 5 of these children, 38 per cent, show some of the clinical symptoms of kernicterus. The period of survival varies up to six years, and it has been noted that some children who are spastic when jaundiced show improvement when the jaundice subsides and as they grow older. In other cases, signs of spasticity do not develop until months, possibly even years, after the jaundice has subsided. While this series confirms the frequent association of kernicterus with hemolytic anemia of the

newborn, no case of kernicterus has been found or reported as occurring solely with obstructive jaundice.

COMMENT

That the discovery of the Rh factor has brought to light the relationship between erthyroblastosis and kernicterus there can be no doubt, but it must not be forgotten that other forms of birth injury, hemorrhage of the new born particularly, must be considered as a cause of basal ganglia destruction. Further studies now in progress will prove more definitely the causes of basal ganglia destruction.

H.E.U.

Pulse-Rate and Blood-Pressure in Infancy and Early Childhood

G. M. ALLEN-WILLIAMS (*Archives of Disease in Childhood,* 20:125, Sept. 1945) reports a study of the resting pulse rate and the ranges of blood pressure in healthy children of pre-school age in the municipal day nurseries of Oxford, England. The blood pressure readings were made when the child was awake, but the pulse rate was determined when the child was asleep, so that these records are not suitable for showing any correlation between the two. It was found that the pulse rate in infancy and childhood decreased with age in both sexes. In female children this decrease was regular, but in males there was a more abrupt decrease at the age of two to three years, so that in this age group, the pulse rate in females was definitely higher than in males (mean rate, 106 per minute for females, 100.4 per minute for males). In other age groups there was no significant differences between the sexes. A greater variation was found in the sleeping pulse rates of different children in the same age group than in the daily sleeping pulse rate of the individual child. In taking blood pressure readings of children in different age groups, a uniform and adequate proportion of the arm was covered by the cuff in all cases, and the width of the cuff was varied according to the age of the child. It was found that the systolic pressure increased with age up to four years old, with the one exception that it decreased in female children, two to three years of age. At four to five years it declined in both sexes. The diastolic pressure decreased in both sexes at the age period of two to three years. It was only at this age period that there was any significant sex difference in the blood pressure; systolic pressure of males at this age was significantly higher than that of females; the diastolic pressure of males was also higher but not to the same degree. No correlation was found between blood pressure and body weight in the group of children studied. The findings reported suggest that at the age of two to three years, there is a significant physiological change in the circulatory system of both sexes.

COMMENT

These observations are most interesting but it must be remembered that both pulse rate and blood pressure reading in children under five years of age offer many difficulties. Both are affected by crying, emotional disturbance, and above all by apprehension on the part of the child. In all children the systolic pressure should be taken several times to overcome the fear of the child. Only after several tests may we determine the correct pulse or blood pressure reading in a child. The pulse pressure in children varies very little from that of adults.

H.E.U.

Congenital Diaphragmatic Hernia With Description of a New Sign

A. SHAHEK A. ABBASY (*Archives of Pediatrics,* 62:285, July 1945) reports a case of congenital diaphragmatic hernia in which the diagnosis was made in the out-patient clinic by means of a new sign, and later confirmed by x-ray. This new sign is a "trumpet sound" heard on auscultation; harsh breath sounds are heard in the upper thorax on the left side. Lower down, a definite medium pitched sound, "exactly resembling that of a motor car trumpet," is heard with each deep inspiration; this sound persists through the whole inspiratory phase with a crescendo note. When breathing is shallow, as during sleep or quiet respiration, this sound is weaker or disappears completely; but

when the respiration becomes deeper, it is reproduced. When the stomach is full, however, it cannot be produced. The author suggests that this sound is produced by the descent of the diaphragm during inspiration which increases the intra-abdominal pressure and forces the air in the abdominal portion of the viscus through the narrow portion of the viscus at the diaphragmatic orifice. If this is correct, the sound will not be produced, if the defect in the diaphragm is wide. The case as reported was seen in Alexandria, Egypt. In a review of the literature on congenital diaphragmatic hernia in the last 12 years in Egypt, the author finds that this is the only case in which the diagnosis was made clinically during life.

EARLY AMBULATION IN GYNECOLOGY AND OBSTETRICS

—Concluded from page 79

In this group of 148 cases, only one patient (a spontaneous L. O. P.) showed morbidity. Because of conditions at home she elected to remain in the hospital longer than the usual time and on the eleventh day she began to run a rise of temperature to 101 Fahrenheit by mouth. It reached a maximum of 102 on the twelfth and thirteenth days and subsided on the seventeenth day. This was probably a flare-up of old pelvic inflammatory disease following delivery of her first child three years before.

Involution in all cases, except those that were retroverted, was complete; in fact, it was better than in patients kept in bed for the usual ten-day period.

There was no evidence of descensus, cystocele or rectocele.

IN conclusion, the primary purpose of the routine already alluded to was to obviate the occurrence of hypostatic pneumonia, phlebitis and embolism as postoperative and postpartal complications.

Three patients had pneumonia. In one of these the condition appeared on the third day following a recent attack of acute bronchitis. This patient had a chronic bronchitis background and the acute phase had apparently subsided. The writer feels that the pneumonia in this case was not of the hypostatic variety, but that it was a flare-up of the recent acute bronchial condition and that, with better judgment, the operation should have been deferred for about a month. Certainly pneumonia developing on the ninth and eleventh days is not hypostatic, the patients having been out of bed nine and eleven days, respectively.

The patient with atalectasis who ran a temperature rise for eight days may have had some degree of pneumonitis, but this was not demonstrable by physical signs, and in this case no roentgenographic examination was done.

None of the patients in the operative or obstetrical groups developed phlebitis or embolism.

Among the vaginoplastics one of the perineorrhaphies broke down. This occurred in a patient with diabetes. Secondary repair of the perineum was successful.

One of the objections to the use of linen sutures in closure of the fascia is that nine patients in the series extruded from one to six linen loops in from six weeks to one year after operation. Another objection to their use is that infected wounds sometimes drain longer than usual until one or more loops are expelled. However, all scars were firm and there were no postoperative herniae.

The activities after return home were not advanced beyond the ability of the patients. They were permitted to swim within a month and play golf in six weeks.

In both obstetrical and surgical patients the effect on the morale was marvelous and with but few exceptions they did not feel that they were invalided. Mothers returning home with their newborn babies were permitted ordinary household activities, which, in view of the lack of help in these recent times, was of no small significance.

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Medical BOOK NEWS

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JEAN FERNEL
1497 - 1558

Classical Quotations

● Moreover the stone, once freed from the kidney, is of such a small size that in a short time it makes its way into the head of the ureter, whence it proceeds to the bladder with much force and nephritic pain. If it is very large, jagged, or pointed, it may stick on the way and tear the ureter with the greatest tortures. But it sometimes persists and remains in the cavity of the kidney if, because of its size, the path of the ureter is not large enough for it. . . . Once the pain has been calmed and assuaged one must consider carefully whether the cause of pain has been forced out into the bladder or whether it has migrated again into the cavity of the kidney.

JEAN FERNEL
Universa Medicina, Paris, 1554.

Obstetric Emergencies

The Management of Obstetric Difficulties. By Paul Titus, M.D. 3rd Edition. St. Louis, C. V. Mosby Co., [c. 1945]. 8vo. 1000 pages, illustrated. Cloth, $10.00.

THIS, the third edition, meets all expectations of those who have read the previous two. The basic structure of the text could not be improved upon, but to this has been added information on much that is new since the second edition was published. Noted among these additions will be found additions and changes in the chapter on sterility, the use of penicillin, sulfa therapy and toxaemias of pregnancy, with a newly proposed classification. The chapter on anaesthesia now includes the use of caudal analgesia; the anaemias are considered at length, while the chapter on intravenous infusions and blood transfusions has been completely revised.

Difficulties encountered in the management of obstetric cases are reviewed at length. Conservative treatment is recommended constantly and where more radical procedures are advocated, warnings of the dangers are given with emphasis.

All who practice obstetrics — specialist and general practitioner, will profit by reading this volume and having it available for reference.

WILLIAM C. MEAGHER

Beckman's Treatment, Revised

Treatment in General Practice. By Harry Beckman M.D. 5th Edition. Philadelphia, W. B. Saunders Co., [c. 1945]. 8vo. 1070 pages. Cloth, $10.00.

THE best way to test the value of a reference book like Beckman's *Treatment in General Practice* is to look up the treatment of certain diseases and judge the merits of the recommendations made. For malaria, for example, the methods recommended conform to the latest advice given by the Board for the Coordination of Malarial Studies of the National Research Council. They are excellent. Equally good advice is given in the treatment of meningococcus meningitis and Rocky Mountain spotted fever.

The treatment of cardiovascular syphilis is well outlined and follows the plan used by the Cooperative Clinical Group. However, the author does not distinguish adequately between patients with uncomplicated aortitis, those with aortic insufficiency, aneurysm or coronary osteal stenosis and those with heart failure. The treatment should be modified for each group.

The latest information is given on the use of the digitalis glycosides and the treatment of congestive heart failure is well handled. However, the use of quinidine sulphate in paroxysmal auricular tachycardia is rather poorly outlined and its very important use in ventricular paroxysmal

tachycardia I cannot find anywhere in the volume.

These criticisms are of minor importance and should not detract from the fact that the book is well worth owning.

EDWIN P. MAYNARD

Birth of Modern Surgery

Joseph Lister, Father of Modern Surgery. By Rhoda Traux. Indianapolis, Bobbs-Merrill Co., [c. 1944]. 287 pages, illustrated. 8vo. Cloth, $3.50.

THIS is a biography for lay enjoyment and edification but with no loss of interest to the medical reader. The double appeal is obtained by a dramatization of the life of the great surgeon and teacher and the problems he was studying. We hope that we may not seem to detract from the literary merit of the book by referring to its great potentialities as a human interest story for the movies. The author has found a way to introduce an account of the work of Pasteur, with whom Lister was personally acquainted, and to tell of the magic of anaesthesia.

With the exception of the references to the controversies which such epoch-making pronouncements must have aroused and the baring of the politics of professorial appointments, this book places medicine and Lister on an enviably high plane of human endeavor. You will enjoy the story as it is told and learn much by the telling.

JOSEPH RAPHAEL

Essentials of Medicine

An Introduction to Medical Science. By William Boyd, M.D. 3rd edition. Philadelphia, Lea & Febiger, [c. 1945]. 8vo. 366 pages, illustrated. Cloth, $3.50.

THIS text is an excellent presentation of the essentials of medicine in a compact volume of only 366 pages and is well illustrated.

The author is especially qualified by his experience as a pathologist and author to present the subject matter in clear and definite form which is also most interesting.

This volume has an added chapter on treatment of disease which is informative and useful but lacks something in personal conviction.

On the whole, this volume is recommended not only as a "must" for nurses and technicians, but also as a useful book of information for our doctors.

HENRY M. FEINBLATT

British Surgical Treatment

Textbook of Surgical Treatment, Including Operative Surgery. Edited by C. F. W. Illingworth, M.D. 2nd Edition. Baltimore, The Williams & Wilkins Co. [c. 1944]. 8vo. 564 pages, illustrated. Cloth, $9.00.

AS the title implies, the text is mainly, though not exclusively, concerned with treatment. It is definitely not meant to be a treatise on operative surgery. Indicated supportive pre-operative and post-operative treatment rather than operative technique per se are emphasized. The author stresses the necessity of such accompanying measures if ultimate success from operative treatment is to be obtained. "Indeed, the actual operation should be regarded as an incident in a course of treatment whose success may depend to a large extent upon ancillary measures of preparation and aftercare." (Illingworth). The book should be especially helpful to students and recent graduates in training rather than to the experienced surgeon. However, even the latter will benefit from its thirty-seven interesting and informative chapters covering a wide field of general surgical treatment. The second edition has been enhanced by the addition of a number of clarifying illustrations; also, in view of the many problems—both technical and non-technical—concerned in the management of burns, the chapter on the Treatment of Burns has been completely revised and brought up to date.

A list of eminent collaborators attests to the high quality of scholarship both as to diction and clinical information and the book is consequently quite "readable" and instructive. Incidentally, too, there is a very helpful index. The reviewer recommends this book without hesitation or reservation.

ARTHUR GOETSCH

BOOKS RECEIVED

for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

Hygiene. By J. R. Currie, M.D. & A. G. Mearns, M.D. 2nd Edition. Baltimore, Williams & Wilkins Co., [c. 1945]. 8vo. 432 pages, illustrated. Cloth, $6.00.

Human Embryology. (Prenatal Development of Form and Function). By W. . Hamilton, M.D., J. D. Boyd, M.D., & H. W. Mossman, Ph.D. Baltimore, Williams & Wilkins Co., [c. 1945]. 8vo. 366 pages, illustrated. Cloth, $7.00.

A Text-Book of Neuro-Anatomy. By Albert Kuntz, M.D. 4th Edition. Philadelphia, Lea & Febiger, [c. 1945]. 8vo. 478 pages, illustrated. Cloth, $6.50.

The Psychology of Diet and Nutrition. By Lowell S. Selling, M.D., & Mary Anna S. Ferraro. New York, W. W. Norton & Co., [c. 1945]. 8vo. 194 pages. Cloth, $2.75.

Diet Manual for Home Nursing. By Marie V. Krause A Eleanora Sense. New York, M. Barrows & Co., [c. 1945]. 8vo. 218 pages. Cloth, $2.00.

A Manual of Ophthalmology for Medical Officers. By Lt. Col. B. W. Rycroft, R.A.M.C. New York, Paul B. Hoeber, [1945]. 8vo. 95 pages, illustrated. Cloth, $2.50.

ATYPICAL PNEUMONIA

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dial failures. These recrudescences have in most instances been due to secondary invaders.

THUS we have atypical pneumonia, of unknown etiology, of unusual characteristics, mostly seen in young adults; a disease encouraging secondary invaders. The mortality rate is low, except in the aged and debilitated. It is not too much to expect that the causative organism will soon be found.

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URGENT MAXILLOFACIAL SURGERY

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Bibliography

1. Abramson, P. D.; *Tri-State Med. J. XLV:* page 2559, Nov. 1941.
2. Berry, T. B. and Kritzinger, F. J.; *S. African Dent. J. XV:* pages 180-183, 1941.
3. Blair, V. P.; *Surg. Gyn. and Ob. LI:* pages 81-98, July 1930.
4. Brophy, T. W.; *Oral Surgery*, Philadelphia, Blakiston, 1915.
5. Brown, J. B.; *Am. J. Orth. XXVI:* pages 910-915, *Wash. Univ. Dent. J. VII:* pages 1-8, Aug. 1940.
6. Brown, J. B. and McDowell, F.; *Am. J. Orth. and Oral Surg. XXVII:* pages 712-727, Dec. 1941.
7. Cannon, B.; *Surg. Gyn. and Ob. LXXIII:* pages 95-97, July 1941.
8. Cirelli, A. A.; *Laryngoscope, LI:* pages 1053-1058, Nov. 1941.
9. Colville, H. D.; *Proc. Cong. Australia Dent. A. X:* pages 761-764, 1939.
10. Davis, W. B.; *Surg. Gyn. and Ob. LXI:* pages 201-209, Aug. 1935.
11. Dorrance, G. M.; *J.A.D.A.* pages 1108-1117, July 1935.
12. Flores, A.; *Rev. Med. Peruana, XIII:* pages 55-58, Feb. 941.
13. Gingrass, R. P.; *Am. J. Orthod. and Oral Surg. XXVI:* pages 961-967, Oct. 1940.
14. Graber, T. M.; *Wash. Univ. Dent. J. VI:* pages 76-83, Feb. 1940.
15. Ivy, R. H. and Curtis, L.; *Annals of Surg.*, Sept. 1931; Sept. 1934.
16. Kazanjian, V. H.; *Am. J. Orthod. and Oral Surg. XXVII:* pages 10-30, Jan. 1941.
17. Lifton, J. D.; *Amer. J. Orthod. and Oral Surg. XXVII:* pages 423-453, Aug. 1941.
18. Lyons, D. C.; *Am. J. Orthod. and Oral Surg. XXV:* pages 895-897, Sept. 1939.
19. Macomber, D. M.; *J. Colorado Dent. A. XIX:* pages 10-14, March 1941.
20. Norman, H. W.; *Dent. Cas. VII:* pages 24-25, Sept. 1940.
21. Olinger, N. A., Singer, L. E. and Katz, T.; *Dent. Items of Int. LXIII:* pages 828-839, Sept. 1941.
22. Penn, Jac; *S. African Dent. J. XIII:* pages 198-206, July 1939.
23. Peters, C. M.; *J. New Jersey Dent. Soc. XI:* pages 59-62, April 1940.
24. Ritchie, H. P.; *Surg. Gyn. and Obst. LXXIII:* pages 654-678, Nov. 1941.
25. Shearer, W. L.; *J. Amer. Dent. A. XXVII*, pages 601-602, April 1940.
26. Townsend, R. H.; *J. Laryngology and Otology, LV:* pages 154-165, Mar. 1940.
27. Vaughan, H. S.; Book review *J. Amer. Dent. A. XXVII:* page 608, April 1940.
28. Veau, V.; *Proc. Royal Soc. Med. X:* part 3, Sect. Surg., 127, 1926-27.
29. Wardhill, W. E. M., Whillis; *Brit. Dent. J. LXVIII:* pages 5-8; discussion pages 8-11, Jan. 1, 1940.

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